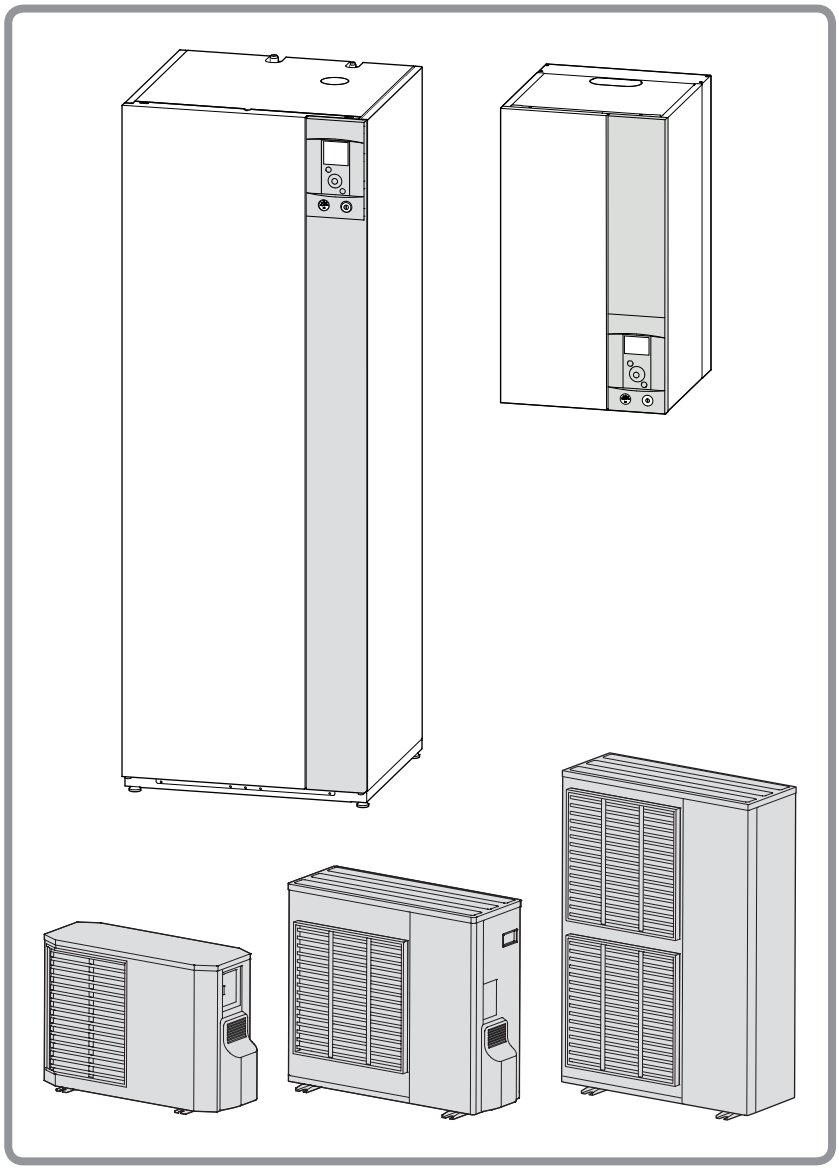
Alféa Extensa A.I.
Alféa Excellia A.I.
Alféa Extensa Duo A.I.
Alféa Excellia Duo A.I.

Air/water split heat pump



atlantic

U0611401_1819_EN_3
19/12/2017

FR | NL | DE | **EN** | IT
ES | PT | PL | GR | CZ
SL | LT | ET

Operating manual

intended for professionals and the user

To be kept by the user for future reference

www.groupe-atlantic.com

Contents

1 Safety instructions

Please comply with the following instructions in order to avoid any risk of injury or inappropriate use of the appliance.

• Commissioning

- ☞ Do not switch the appliance ON until every filling operation has been performed
- ☞ Do not attempt to install this appliance yourself. This heat pump must be installed by qualified personnel holding a certificate of competence.
- ☞ The installation must always be properly earthed and fitted with a safety circuit breaker.
- ☞ Do not change the power supply.
- ☞ The appliances are not fireproof and should not therefore be installed in an explosive environment.

• How to Use

- ☞ This appliance can be used by children 8 years and above. Also persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, provided they have been given supervision or instruction concerning use of the appliance in a safe way and with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- ☞ Do not let children insert foreign bodies inside the propeller protection grate or climb onto the roof of the outdoor unit. The fins of the air heat exchanger are extremely thin and can cause cuts.
- ☞ Nothing should obstruct the air circulation through the evaporator and out from the fan.
- ☞ The outdoor unit must only be installed outside. If a shelter is required,it must have broad openings on all 4 sides and installation clearances must be observed (see your installation engineer).
- ☞ Do not climb on top of the outdoor unit.
- ☞ The room in which the unit is operating must be correctly ventilated in order to avoid any shortage of oxygen in the event of a refrigerant gas leak.
- ☞ If your installation location already meets safety standards, do not carry out any modifications (ventilation, exhaust evacuation, openings, etc.) without the advice of your installation engineer.
- ☞ Do not place any heat source under the remote control.

• Maintenance

- ☞ Do not try to repair the appliance yourself.
- ☞ This appliance does not contain any components which can be repaired by the user. Removing either of the covers can expose you to dangerous electrical voltages.
- ☞ In any case, switching off the current is not sufficient to protect you from any external electrical shocks (condensers).
- ☞ Do not open the outdoor unit or the hydraulic unit while they are in operation.
- ☞ If you hear unusual noises, smell smoke or other odours coming from the appliance, turn off the power and contact your installation engineer.
- ☞ Before starting any cleaning, turn off the power to the appliance.
- ☞ Do not use aggressive cleaning liquids or solvents to clean the body work.
- ☞ Do not use a pressure hose to clean the outdoor unit. You may damage the air exchanger and get water inside the electrical circuits.

2 Overview of installation

2.1 Precautions and warnings about your installation

2.1.1 Outdoor unit

The outdoor unit contains the equipment that enables the capture of energy from the surrounding air.

This unit was installed by your installer in a location where it is able to operate with best performance.

Nothing should obstruct the air circulation through the evaporator and out from the fan.

The water contained in the air may condense and flow out of the outdoor unit. The outdoor unit can generate a large volume of water called condensate.

In cold weather, this water freezes on contact with the exchanger and must be regularly removed using the defrosting cycles. The defrosting cycle is managed automatically by the control system and can produce steam emissions which are completely normal.

2.1.2 Hydraulic unit

The hydraulic unit contains the appliance's control system which manages the room temperature and the production of domestic hot water.

The hydraulic unit is fitted with an electrical backup* or boiler connection* which intervenes to provide additional heat during the coldest periods.

2.1.3 Settings

Your installer has carefully adjusted your installation. Do not change the settings without their consent. If in doubt, do not hesitate to contact them.

Your heating system is controlled by adjustment in relation to the outside temperature (temperature control).

The installation of a room thermostat (option) makes it possible to improve the operation of the control system (influence of the ambient temperature is taken into account).

2.1.4 Radiators

In order to ensure operation of the control system, the room containing the thermostat must not also contain a thermostatic valve. If this is the case, it must be opened as far as possible.

2.1.5 Underfloor heating system

A new underfloor heating system must initially be heated slowly to avoid any problems involving cracking. Check with your installer that this initial heating procedure has indeed been performed before freely using your heating system.

An underfloor heating system's significant inertia prevents sudden room temperature differences. However, this inertia implies a reaction time of around several hours (approx 6 hours).

Any changes to the setting must be made slowly and leave the installation sufficient time to react. Any exaggerated or abrupt adjustments to the settings always result in significant temperature fluctuations during the day.

Similarly if your dwelling has an underfloor heating system, do not reduce it or switch it off if you will be absent for only short periods. The reheating period is always quite long (approx 6 hours).

2.1.6 Fan coils / dynamic radiators with an integrated control system

Do not use a room sensor in the area in question.

2.1.7 Domestic Hot Water (DHW)*

When hot water is required, the heat pump adapts its priority to meet the request.

No heating is produced during the preparation of domestic hot water.

The heat pump produces the domestic hot water (DHW), which is then additionally heated, if required, by the electrical backup.

To ensure a DHW setpoint over 45°C, the electrical backup heating or boiler (boiler connection kit)* must be left on.

The electrical backup allows the correct operation of the anti-legionella cycles.

* depending on configuration / option

2.2 Appliance end-of-life

The appliances must be dismantled and recycled by a specialised service. The appliances must not, under any circumstances, be thrown out with household waste, bulky waste or at a tip.

At the end of its service life, please contact your installer or local representative to proceed with its dismantling and recycling.

2.3 Overview of the installation

Your heat pump has been configured by your installation engineer. It is made up of the following main parts:

- The outdoor unit, as its name suggests, is placed outside your dwelling, and extracts energy from the outside air.
- The hydraulic unit is located in your boiler room, cellar, garage or even in your kitchen, and transfers energy to the heating and domestic hot water circuits*.
- The outside sensor monitors the outside temperature.

Optional:

- Room sensor(s).

Heat pumps are systems which can be connected to any type of **low temperature distribution system** and the heat captured by the heat pump can be used in different ways:

- Underfloor heating system.
- Radiators.
- Domestic Hot Water (DHW)*.

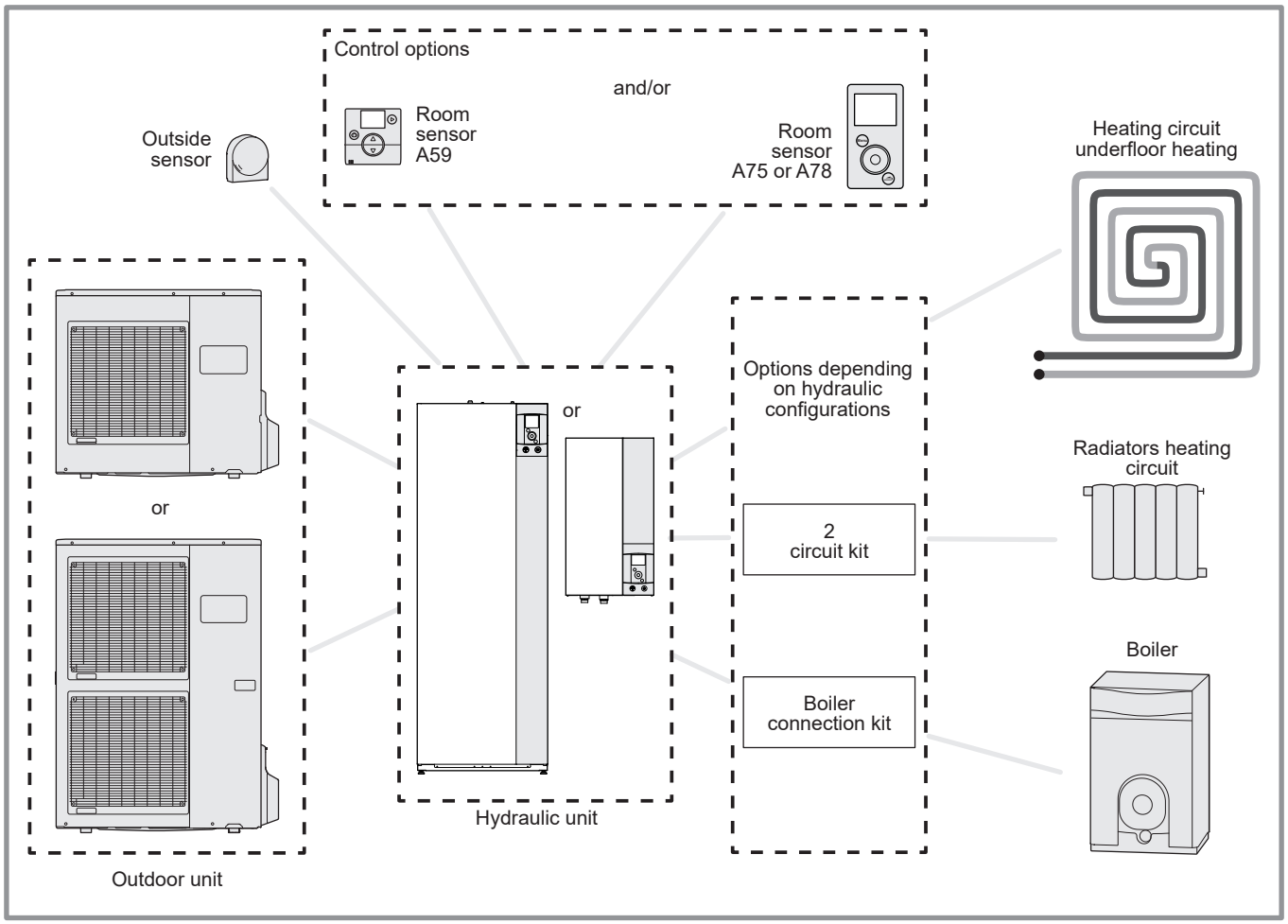
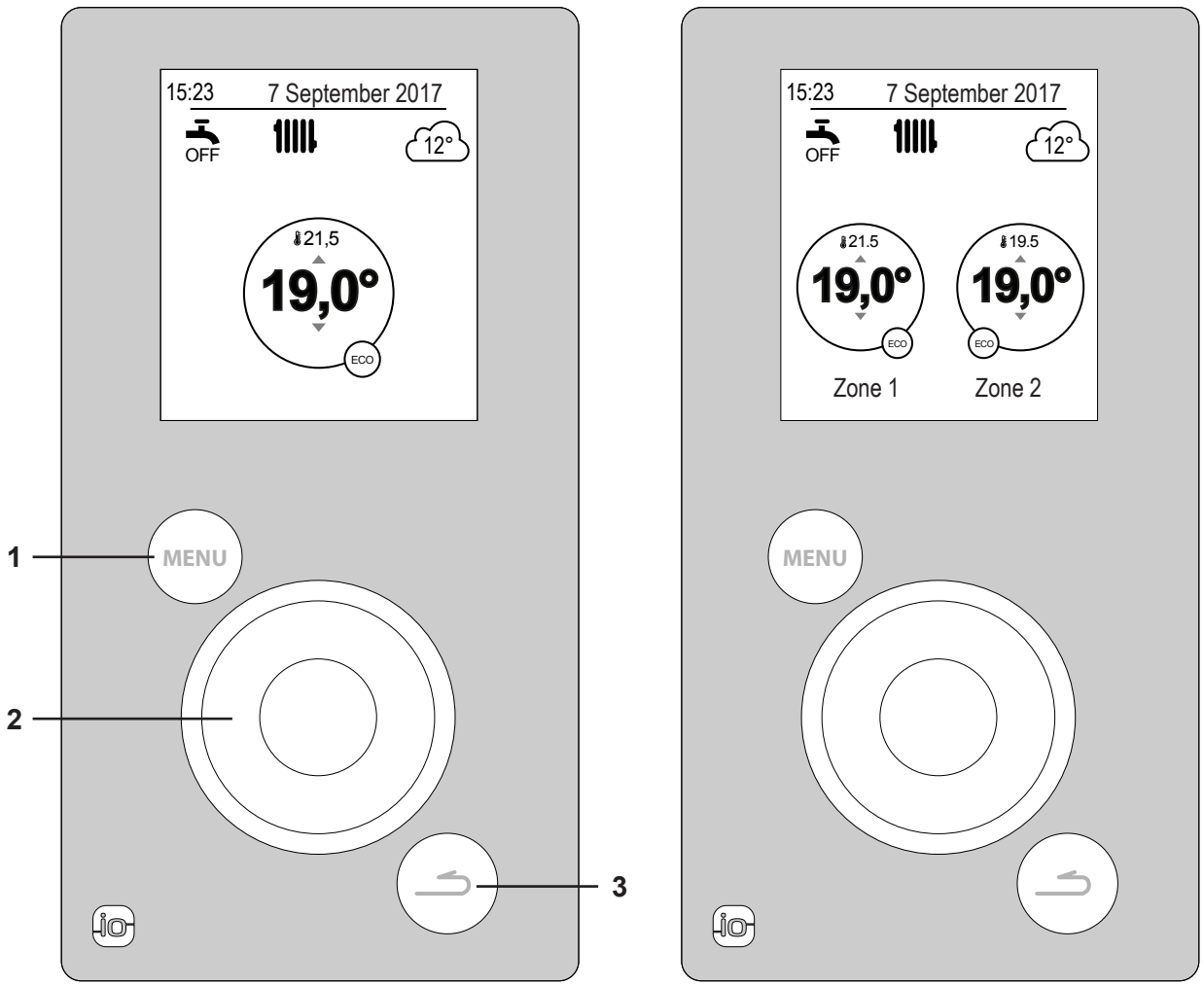


figure 1 - Overview of complete installation configuration

* depending on configuration / option

3 Carrying out the installation

3.1 User Interface

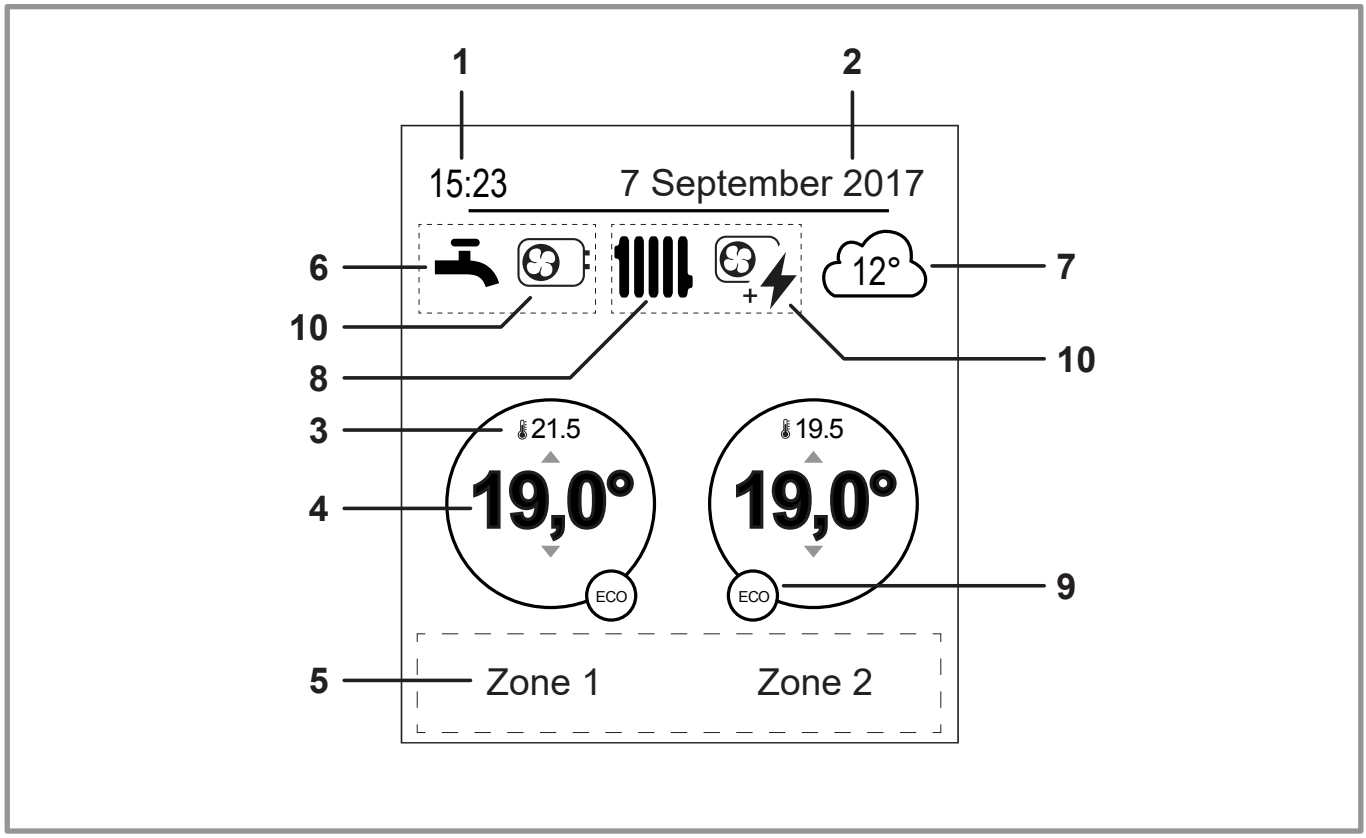


☞ **1 heating circuit version + domestic hot water (DHW)**

☞ **2 heating circuit version + domestic hot water (DHW)**

Reference	*Description*
1	Menu button
2	Navigation knob (rotate knob), accept (press knob)
3	Back button

3.2 Display Description



N°	Symbols	Definitions
1	15:23	Time
2	07 September 2017	Date
3	21.5	Temperature measured by the room sensor*
4	19,0°	Room temperature setpoint
5		Information (zone names, emergency mode, test mode, error display, etc.)
6	**Domestic Hot Water (DHW)* ...**	
		Activated
	BOOST	Boosting in progress
	OFF	Deactivated
7	12°	Temperature measured by the outside sensor
8	**Operation ...**	
		Heating
		Cooling*

N°	Symbols	Definitions
9	**Mode ...**	
		Comfort
		Manual (exemption)
	ECO	ECO
		Holiday
		Floor drying
		Stop (except frost)
10	**Production via ...**	
		Heat Pump
		Electrical backup*
		HP + electrical backup*
		HP + Fuel/Gas*
		Fuel/Gas*

* depending on configuration / option

Navigating the Menus

To ...	Action:
Access the menu	Press MENU.
Choose a menu item	Turn the knob to highlight your choice. Press the knob to accept.
Return to the previous menu	Press ⮌.
Return to the main menu	Press MENU twice.
Return to the welcome screen	Press MENU or ⮌ on the main menu.

Note: *Some settings (or menus) might not be displayed. They are dependent on the installation's configuration (and installed options).*

3.3 Modifying Settings

- Turn the knob to highlight the setting you wish to change.
- Press the knob to accept the change.
- Turn the knob to adjust the setting.
- Press the knob to accept your choice.

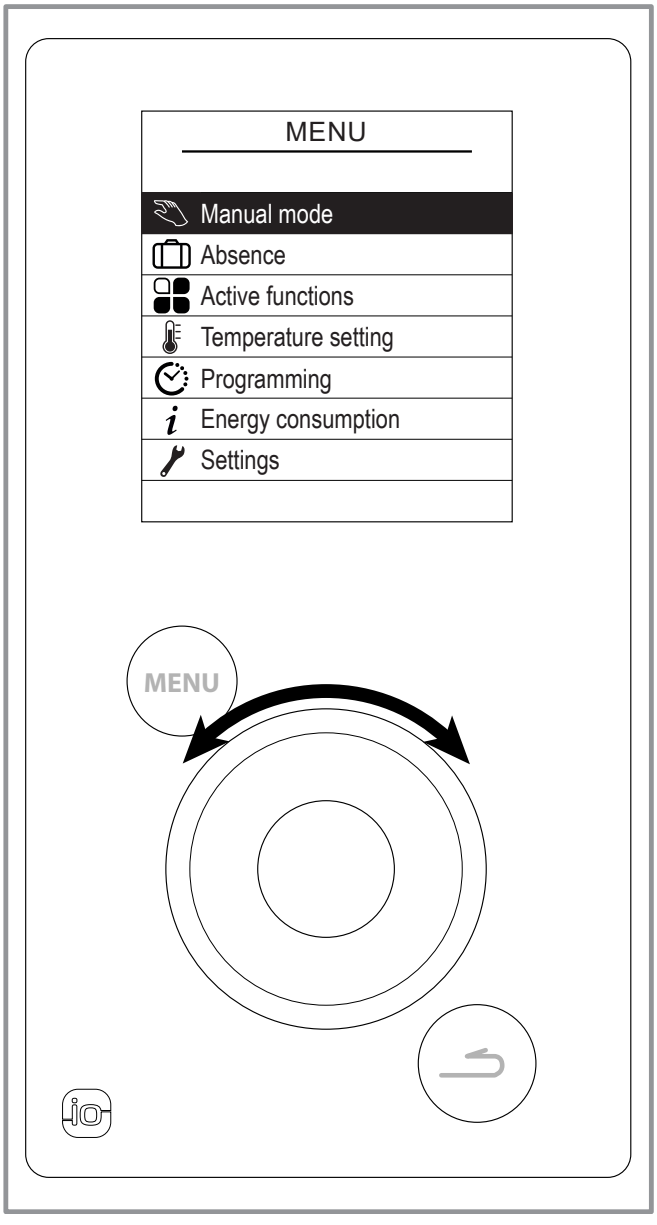
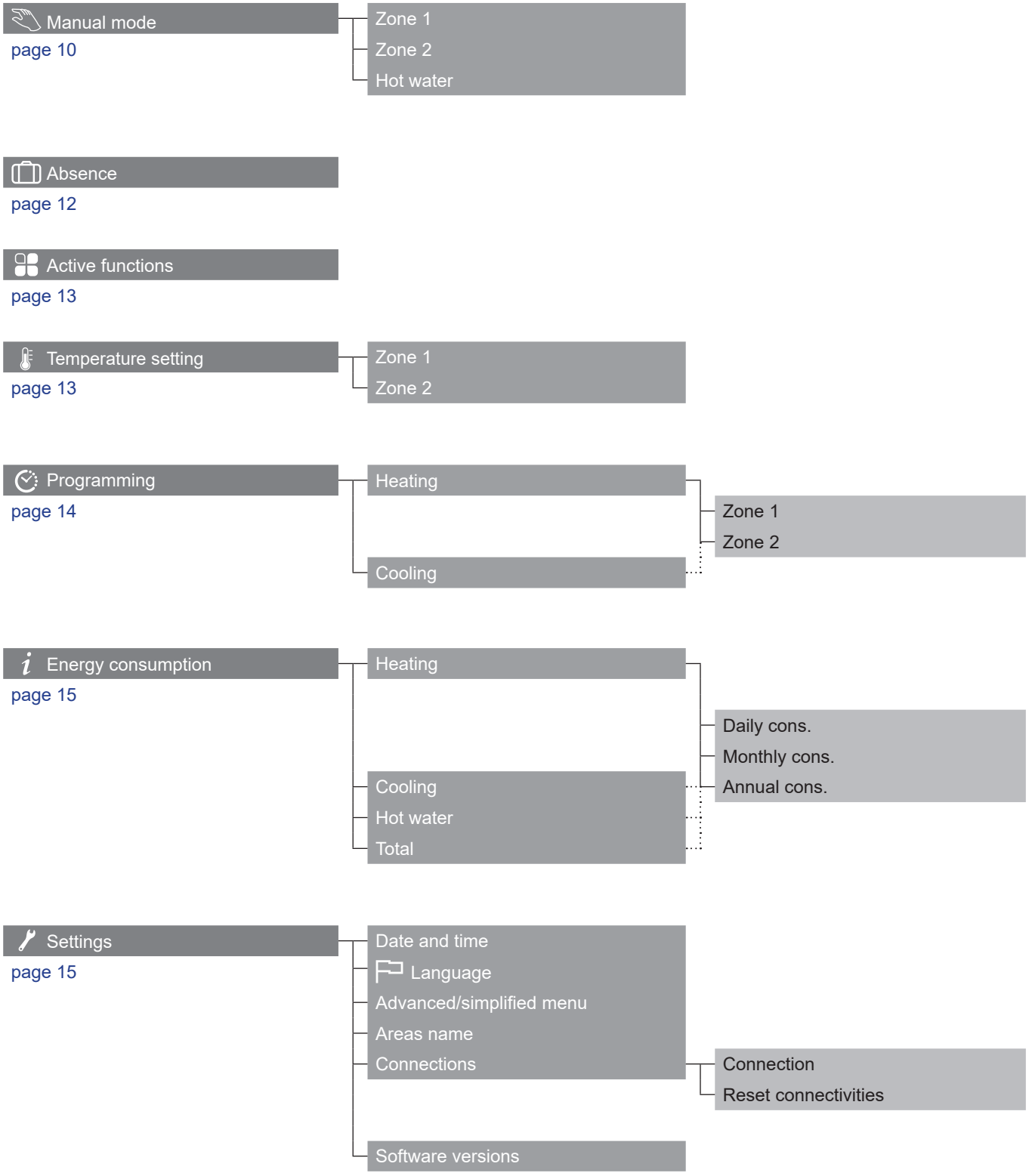


figure 2 - Navigation

3.4 Menu Structure



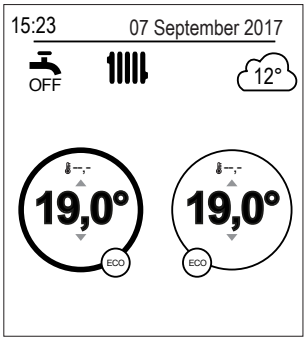
3.5 Manual mode

3.5.1 Derogation from timer program

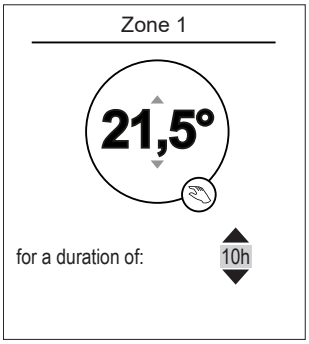
When a timer program is active (advanced menu), an exemption allows you to force the appliance into operation (*"Heating" or "Cooling"*) at the desired temperature for a certain duration.

■ From the welcome screen

Select the zone (the selected zone's circle is thicker).

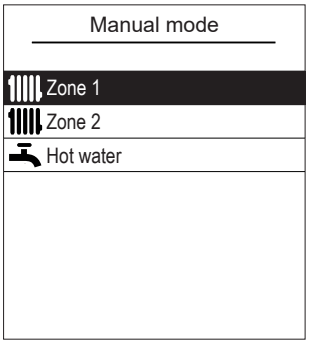


Set the required temperature, then the duration of the exemption.

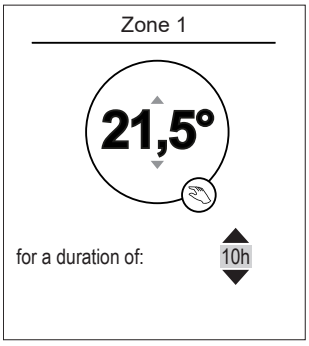


■ From the menu

Choose the zone from the menu:
"Manual mode".



Set the required temperature, then the duration of the exemption.

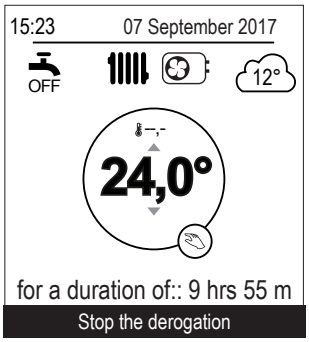


Some settings (or menus) might not be displayed. They are dependent on the installation's configuration (and installed options).

3.5.2 Cancelling an derogation from timer program

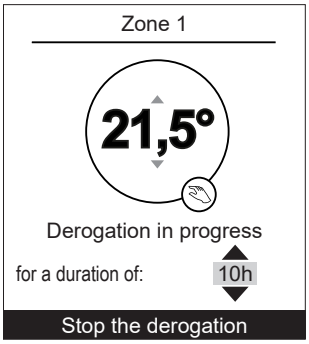
■ Cancelling an derogation with 1 heating zone

From the welcome screen, select:
"Stop the derogation".



■ Cancelling an derogation with 2 heating zones

Choose the zone from the menu:
"Manual mode".
Press the knob to cancel the exemption.

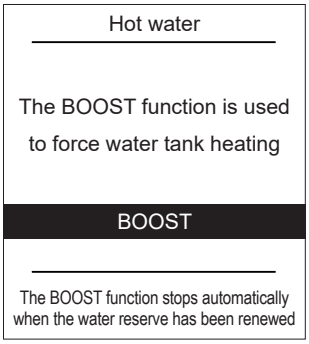


3.5.3 Forced domestic hot water operation (Boost)

The domestic hot water (DHW) boost function heats the tank up to the Comfort temperature.

Go to the menu:
"Manual mode" > "Hot water".
Press the knob to activate the "*BOOST*" function.

☞ **When hot water is required, the heat pump adapts its priority to meet the request.**
☞ **No heating is produced during the preparation of domestic hot water.**



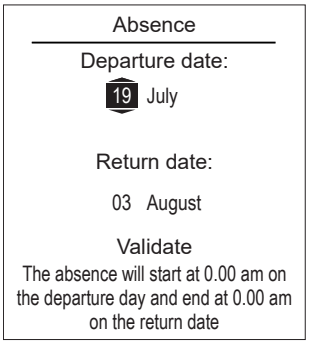
Some settings (or menus) might not be displayed. They are dependent on the installation's configuration (and installed options).

3.6 Absence

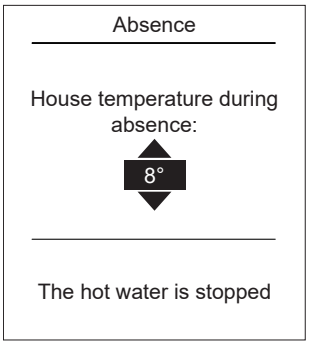
In the event of a prolonged absence, you can set a period in which the heating operates at a reduced temperature (except for frost) and the production of domestic hot water (DHW) is stopped.

3.6.1 Programming absence mode

Set the holiday start and end dates and accept.
- To return to the previous setting (e.g. from month to day), press the ⮌ button.

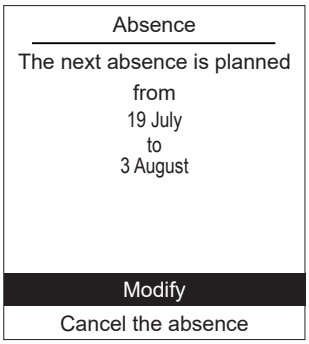


Set the temperature for the dwelling during the absence.

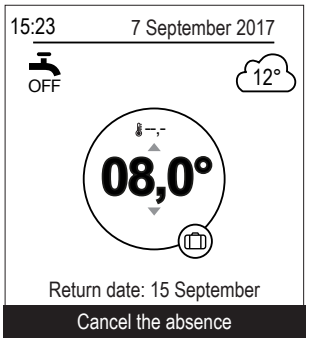


3.6.2 Viewing, modifying and cancelling the next absence period

You can view, modify and cancel the next holiday period by going into the menu: *"Absence".*



You can cancel a currently active absence period from the welcome screen.



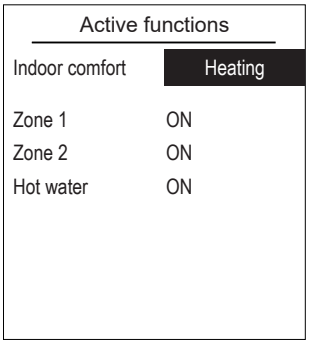
Some settings (or menus) might not be displayed. They are dependent on the installation's configuration (and installed options).

3.7 Active functions

The "*Active Functions*" page tells you which services are operating and allows you to change their status.

- "*Indoor comfort*": *Heating / Cooling / Stop.*
- *"Zone 1" / "Zone 2" / "Hot water"*: *ON / Stop.*

☞ **If "Indoor Comfort" is set to "Stop", Zones 1 and 2 cannot be modified.**

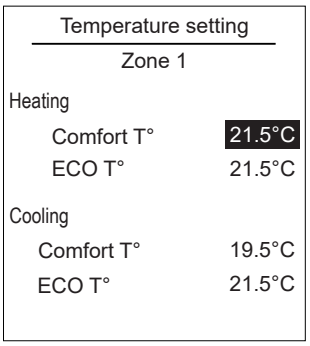


3.8 Temperature setting

The "Temperature setting" page allows you to set temperature setpoints for Comfort and ECO periods (heating and cooling). Settings must be recorded for each zone.

☞ **Heating temperatures factory settings:**
Comfort 20°C, ECO 19°C.

☞ **Cooling temperatures factory settings:**
Comfort 24°C, ECO 26°C.



Some settings (or menus) might not be displayed. They are dependent on the installation's configuration (and installed options).

3.9 Programming

A timer program allows you to define the appliance's automatic operation periods (Comfort ↔ ECO) Each day can be set independently.

3.9.1 Creating a timer program

1 - Choose *"Heating" or "Cooling"* as well as the appropriate zone by accessing the menu: *"Programming" > "Heating" / "Cooling" > "Zone 1" / "Zone 2".*

2 - Select the day.

3 - Adjust the Comfort period start and end times.

☞ **If 2 or 3 Comfort periods are not required, click on "--:--".**

- To return to the previous setting (e.g. end 1st heating period to start of 1st heating period), press the ⮌ button.

• To copy the program to other days:

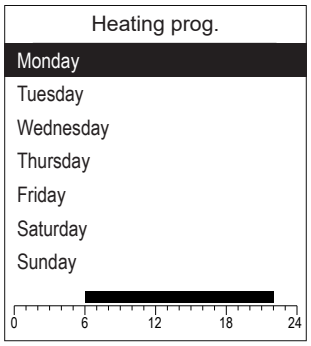
4 - Select "*Validate and copy*".

5 - Set the required days to "*Yes*" and then select "*Complete*".

• Else "*Validate*".

☞ **Heating / cooling period factory setting: 06:00 - 22:00.**

2



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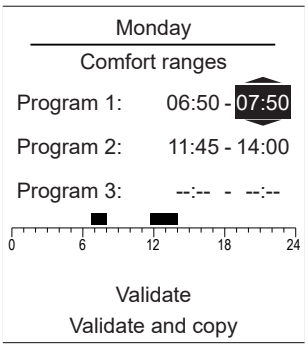

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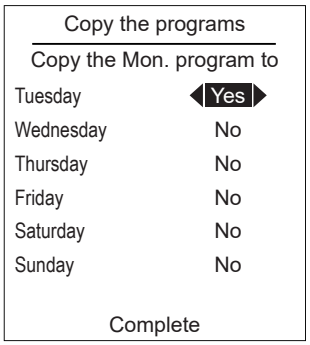
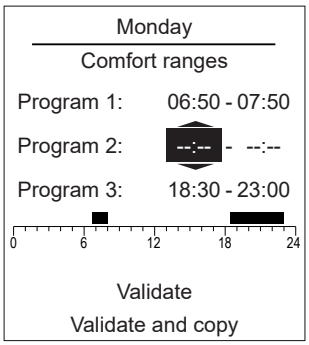


3.9.2 Deleting a Comfort period

To delete a Comfort period, set its start and end times to the same value.
When accepting a setting, the screen displays:

Program X: --:-- - --:--

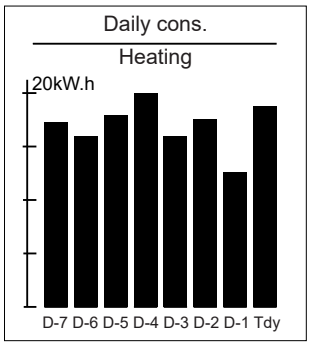


Some settings (or menus) might not be displayed. They are dependent on the installation's configuration (and installed options).

3.10 *i* Energy consumption

Consumption can be displayed per usage:
- Heating (Zones 1 and 2).
- Cooling.
- Domestic Hot Water (DHW).
- Total (Heating + Cooling + Hot Water).

This information is available for:
- the last 8 days: daily consumption (Tdy = Today, D-1 = yesterday, etc.).
- the last 12 months: monthly consumption (Initial letter of month. e.g. J = January, etc.).
- the last 10 years: annual consumption (last 2 digits. e.g. 16 = 2016).

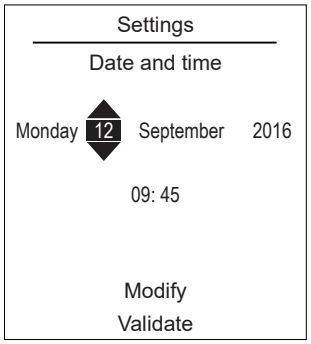


Example for daily consumption of the heating system.

3.11 Settings

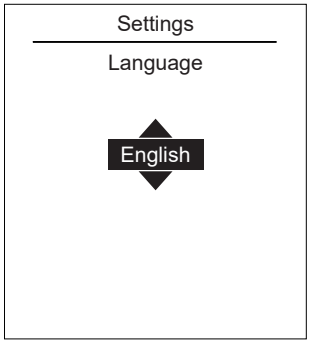
3.11.1 Date and time

To set the appliance's date and time, access the menu:
"Settings" > "Date and Time".



3.11.2 Language

To change the language, access the menu:
"Settings" > "Language".



Some settings (or menus) might not be displayed. They are dependent on the installation's configuration (and installed options).

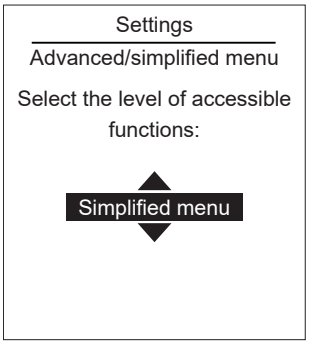
3.11.3 Advanced/simplified menu

Two display modes for menus and appliance functions are available:

- **Advanced menu**:
  - The appliance follows the timer programming defined in paragraph 3.9, page 14.
- **Simplified menu***:
  - The appliance operates at a constant temperature set directly by the user.
  - Some functions are no longer accessible.

* The "*Simplified Menu*" setting is not compatible with the Cozytouch application.

Choose the display mode from the menu:
"Settings" > "Advanced/Simplified menu"



☞ **Setting the temperature in the Simplified Menu**

☞ **1 zone**

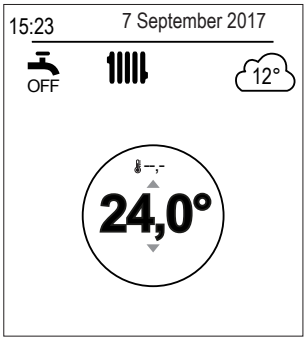
1 - Turn the knob to adjust the temperature **directly**.

☞ **2 zones**

2 - Select the zone. Accept.

4 - Set the temperature using the knob. Accept.

1



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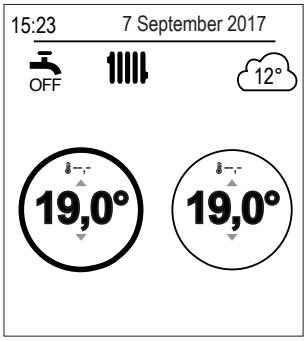
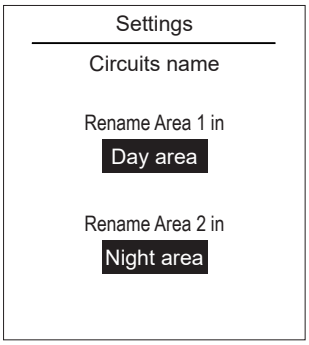


3.11.4 Areas name

You can customise the zone names from the menu:
"Settings" > "Areas name".

Available names: "*Area 1*" / "*Area 2*" / "*Day area*" / "*Night area*" / "*1st floor*" / "*Lounge*" / "*G. floor*" / "*Bedroom*" / "*Floor*" / "*Radiator*".



Some settings (or menus) might not be displayed. They are dependent on the installation's configuration (and installed options).

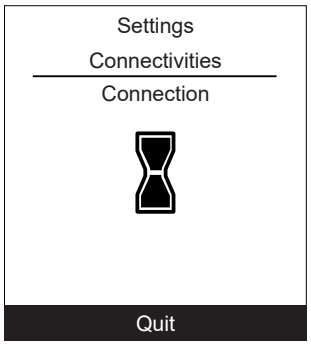
3.11.5 Connectivities

☞ **Pairing a room sensor:**

To connect a room sensor, go to the menu:
"Settings" > "Connectivities" > "Connection".
The appliance waits for pairing for 10 minutes.

☞ **See the room sensor's installation instructions.**

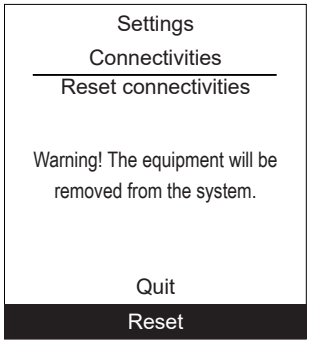
☞ **The "Connection" menu is no longer accessible if a sensor has already paired.**



☞ **Reset connectivities**

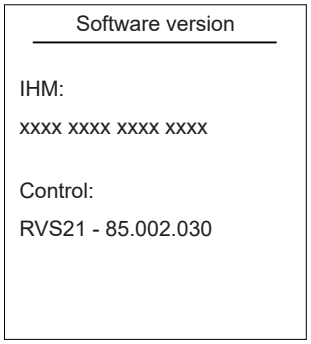
⚠ Reinitialising will cancel all pairings.

Select "Re-set" in the menu:
"Settings" > "Connectivities" > "Reset connectivities".



3.11.6 Software version

Show the display (IHM) and controller software versions.



Some settings (or menus) might not be displayed. They are dependent on the installation's configuration (and installed options).

4 Maintenance

In order to ensure that your appliance operates correctly for many years, the maintenance operations described below are required at the start of each heating season. They are generally carried out as part of a maintenance contract.

4.1 Regular checks

- Check the water pressure in the heating circuit regularly (refer to the installer's recommended pressure - between 1 and 2 bar)
- If a filling operation and a pressure increase are required, check what type of fluid was used initially (when in doubt, contact your installer).

- If frequent refills are required it is absolutely essential that you check for any leaks.

☞ **The frequent addition of water risks scaling the exchanger and affects its performance and lifespan.**

4.2 Checking the outdoor unit

Remove any dust from the exchanger, if necessary, while making sure not to damage the blades.

Check that there is nothing blocking the air flow.

• Checking the refrigeration circuit

If the amount of refrigerant in the system exceeds 2kg (models > 10 kW), the refrigeration circuit must be checked annually by an approved engineer (they must have a certificate of competence for the handling of refrigerants). Consult your heating engineer.

4.3 Hot water tank*

Maintenance on the tank must be carried out annually (frequency may vary according to water hardness).

Consult your heating engineer.

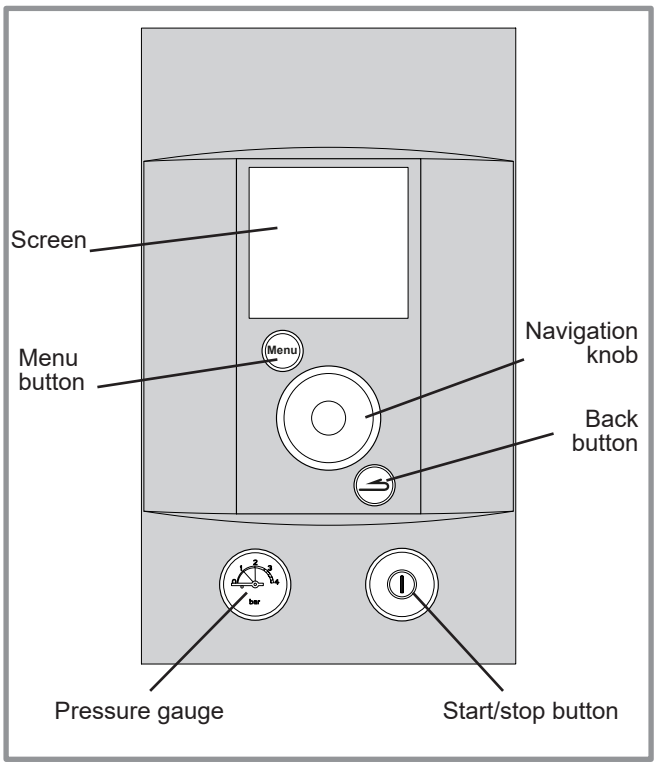


figure 3 - Control panel

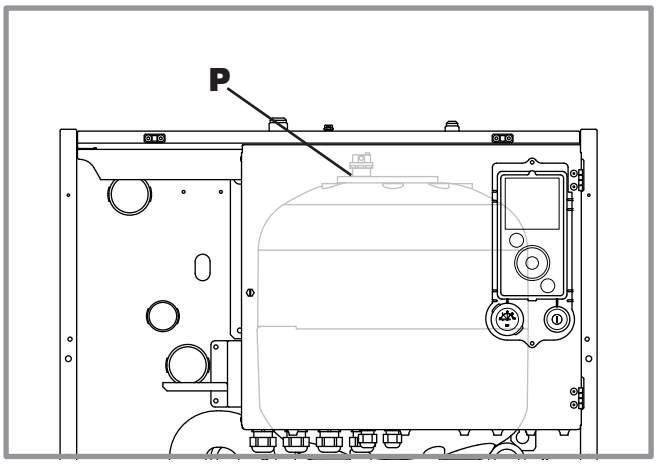


figure 4 - Automatic bleeder valve

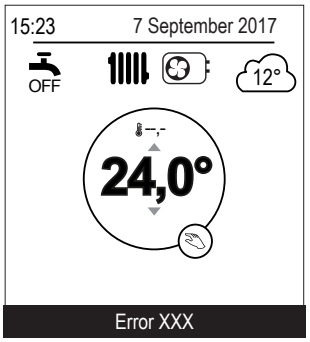
* depending on configuration / option

	OFF	LED Off: The circulation pump is not working, no power supply.
	✓	Green LED On: The circulation pump is operating normally.
	air **10 min.**	Green LED flashing: Venting mode in operation (10 minutes).
	Auto Test	Red/green LED flashing: Operating error with automatic restart.
		Red LED flashing: Operating error, consult your heating engineer.

figure 5 - Operating signals of the HP circulation pump

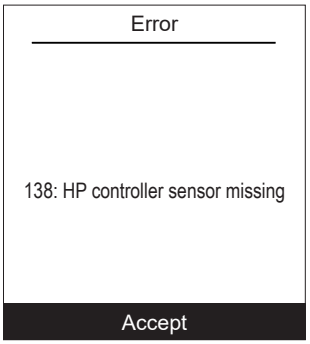
4.4 Error messages

If a fault occurs, the error number appears on the welcome screen.



To obtain the error's designation, select it using the knob.

☞ **In the event of an error, note down the number and consult your heating engineer.**



5 ErP performance figures

5.1 Definition of ErP

The term "ErP" includes two directives that are part of the European program for reducing greenhouse gases:

- The Ecodesign Directive establishes efficiency thresholds and prohibits the marketing of products whose efficiency is below these thresholds.
- The Energy Labelling Directive requires an energy performance label for products, in order to encourage customers to buy products that consume less energy.

5.2 Extensa A.I. ErP specifications

Trade name / Product name:	**Atlantic / Alféa ...**		**Extensa A.I. 5**		**Extensa A.I. 6**		**Extensa A.I. 8**		**Extensa A.I. 10**	
Export Code (with backup) **Export Code (without backup)**			**526220** **526230**		**526221** **526231**		**526222** **526232**		**526223** **526233**	
Heating applications			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Air/water heat pump			Yes							
Equipped with a backup heater			Yes							
Average climate - Space heating										
Energy class (product)	-	-	A++	A+	A++	A+	A++	A+	A++	A+
Energy class (package)	-	-	A++	A+	A++	A+	A++	A+	A++	A+
Rated heat output (2)	P_{rated}	kW	4	4	5	5	7	6	8	8
Rated energy efficiency	η_s	%	169	115	169	115	156	118	155	113
Rated energy efficiency with outside sensor (1)	η_s	%	171	117	171	117	158	120	157	115
Rated energy efficiency with room sensor (1)	η_s	%	173	119	173	119	160	122	159	117
Annual energy consumption	Q_{he}	kWh	2160	3027	2505	3180	3375	3886	4415	5415
Colder climate - Space heating										
Rated heat output (2)	P_{rated}	kW	NA							
Rated energy efficiency	η_s	%								
Annual energy consumption	Q_{he}	kWh								
Warmer climate - Space heating										
Rated heat output (2)	P_{rated}	kW	4	4	5	4	6	5	8	6
Rated energy efficiency	η_s	%	217	139	212	138	207	138	196	136
Annual energy consumption	Q_{he}	kWh	1090	1423	1167	1531	1439	1934	2203	2422
Acoustic data										
Sound power level of hydraulic unit	L_{WA}	dB (A)	46							
Sound power level of outdoor unit	L_{WA}	dB (A)	63		63		69		69	
Declared heat output with a partial load for an indoor temperature of 20°C and an outdoor temperature of Tj										
Tj = -7°C	Pdh	kW	4.0	3.8	4.6	4.0	5.8	5.3	7.5	6.7
Tj = +2°C	Pdh	kW	2.4	2.3	2.8	2.5	3.5	3.1	4.5	4.1
Tj = +7°C	Pdh	kW	2.0	1.7	2.3	1.7	2.3	2.0	3.5	3.2
Tj = +12°C	Pdh	kW	2.3	2.1	2.3	2.1	2.4	2.2	4.0	4.0
Tj = bivalent temperature	Pdh	kW	4.0	3.8	4.6	4.0	5.8	5.3	7.5	6.7
Tj = operating temperature limit	Pdh	kW	3.9	3.2	4.5	3.5	5.6	4.9	7.0	5.9
Bivalent temperature	T_{biv}	°C	-7	-7	-7	-7	-7	-7	-7	-7
Degradation coefficient (3)	Cdh	-	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Trade name / Product name:	**Atlantic / Alféa ...**		**Extensa A.I. 5**		**Extensa A.I. 6**		**Extensa A.I. 8**		**Extensa A.I. 10**	
Export Code (with backup) **Export Code (without backup)**			**526220** **526230**		**526221** **526231**		**526222** **526232**		**526223** **526233**	
Heating applications			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Declared coefficients of performance with a partial load for an indoor temperature of 20°C and an outdoor temperature of Tj										
Tj = -7°C	COP_d	-	2.86	1.86	2.65	1.79	2.35	1.77	2.35	1.74
Tj = +2°C	COP_d	-	4.10	2.82	4.17	2.86	3.82	2.93	3.81	2.74
Tj = +7°C	COP_d	-	5.00	4.00	5.99	4.03	5.69	4.12	5.71	4.10
Tj = +12°C	COP_d	-	8.12	5.84	8.29	5.84	8.16	5.81	7.16	5.72
Tj = bivalent temperature	COP_d	-	2.86	1.86	2.65	1.79	2.35	1.77	2.35	1.74
Tj = operating temperature limit	COP_d	-	2.65	1.54	2.57	1.56	2.02	1.47	2.16	1.44
For air/water heat pumps: operating temperature limit	TOL	°C	-10	-10	-10	-10	-10	-10	-10	-10
Maximum heating water operating temperature	WTOL	°C	55	55	55	55	55	55	55	55
Backup heater										
Rated heat output (2)	P_{sup}	kW	0.6	1.1	0.7	1.0	0.9	1.2	1.4	1.7
Type of energy used	-	-	Electric							
Electricity consumption in modes other than the active mode										
Shutdown mode	P_{OFF}	W	6	6	6	6	6	6	5	5
Thermostat shutdown mode	P_{TO}	W	19	17	23	16	30	16	43	22
Standby mode	P_{SB}	W	10	10	10	10	9	9	8	8
Casing resistance mode	P_{CK}	W	0	0	0	0	0	0	0	0
Other characteristics										
Power control	-	-	Inverter							
For air/water heat pumps, rated air flow rate, outdoors	-	m^3/h	2070		2340		3600		6200	

(1) The calculation details are available on the package datasheet. The room unit refers to: sensors, thermostats and remote controllers included, or not included, in the kits.

(2) For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the rated calorific load $P_{designh}$, and the rated heat output of the backup heater P_{sup} is equal to the calorific output of the extra backup heating (Tj).

(3) If Cdh is not determined by measurement then the default degradation coefficient is Cdh=0.9.

Trade name / Product name:	**Atlantic / Alféa ...**		**Extensa A.I. 13**		**Extensa A.I. 16**	
Export Code (with backup) **Export Code (without backup)**			**-** **526234**		**-** **526235**	
Heating applications			35°C	55°C	35°C	55°C
Air/water heat pump			Yes			
Equipped with a backup heater device			Yes (mandatory accessory)			
Average climate - Space heating						
Energy class (product)	-	-	A++	A+	A+	A+
Energy class (package)	-	-	A++	A+	A++	A+
Rated heat output (2)	P_{rated}	kW	11	9	13	11
Rated energy efficiency	η_s	%	151	112	148	113
Rated energy efficiency with outside sensor (1)	η_s	%	153	114	150	115
Rated energy efficiency with room sensor (1)	η_s	%	155	116	152	117
Annual energy consumption	Q_{he}	kWh	6062	6623	6824	8041
Colder climate - Space heating						
Rated heat output (2)	P_{rated}	kW	NA			
Rated energy efficiency	η_s	%				
Annual energy consumption	Q_{he}	kWh				
Warmer climate - Space heating						
Rated heat output (2)	P_{rated}	kW	10	8	11	9
Rated energy efficiency	η_s	%	171	120	176	119
Annual energy consumption	Q_{he}	kWh	3246	3573	3321	3719
Acoustic data						
Sound power level of hydraulic unit	L_{WA}	dB (A)	46			
Sound power level of outdoor unit	L_{WA}	dB (A)	69		70	
Declared heat output with a partial load for an indoor temperature of 20°C and an outdoor temperature of Tj						
Tj = -7°C	Pdh	kW	10.0	8.2	11.1	10.0
Tj = +2°C	Pdh	kW	6.1	5.0	6.7	6.1
Tj = +7°C	Pdh	kW	6.2	5.9	6.2	5.9
Tj = +12°C	Pdh	kW	7.4	7.0	7.3	7.1
Tj = bivalent temperature	Pdh	kW	10.0	8.2	11.1	10.0
Tj = operating temperature limit	Pdh	kW	10.0	8.0	10.8	9.3
Bivalent temperature	T_{biv}	°C	-7	-7	-7	-7
Degradation coefficient (3)	Cdh	-	0.9	0.9	0.9	0.9

Trade name / Product name:	**Atlantic / Alféa ...**		**Extensa A.I. 13**		**Extensa A.I. 16**	
Export Code (with backup) **Export Code (without backup)**			**-** **526234**		**-** **526235**	
Heating applications			35°C	55°C	35°C	55°C
Declared coefficients of performance with a partial load for an indoor temperature of 20°C and an outdoor temperature of Tj						
Tj = -7°C	COP_d	-	2.57	1.89	2.51	1.89
Tj = +2°C	COP_d	-	3.65	2.80	3.60	2.77
Tj = +7°C	COP_d	-	5.35	3.76	5.35	3.89
Tj = +12°C	COP_d	-	6.90	4.81	6.90	5.11
Tj = bivalent temperature	COP_d	-	2.57	1.89	2.51	1.89
Tj = operating temperature limit	COP_d	-	2.24	1.66	2.38	1.67
For air/water heat pumps: operating temperature limit	TOL	°C	-10	-10	-10	-10
Maximum heating water operating temperature	WTOL	°C	55	55	55	55
Backup heater						
Rated heat output [2]	P_{sup}	kW	1.3	1.3	1.7	2.1
Type of energy used	-	-	Electric			
Electricity consumption in modes other than the active mode						
Shutdown mode	P_{OFF}	W	8	8	8	8
Thermostat shutdown mode	P_{TO}	W	45	22	72	25
Standby mode	P_{SB}	W	12	12	12	12
Casing resistance mode	P_{CK}	W	0	0	0	0
Other characteristics						
Power control	-	-	Inverter			
For air/water heat pumps, rated air flow rate, outdoors	-	m^3/h	6200		6200	

[1] The calculation details are available on the package datasheet. The room unit refers to: sensors, thermostats and remote controllers included, or not included, in the kits.

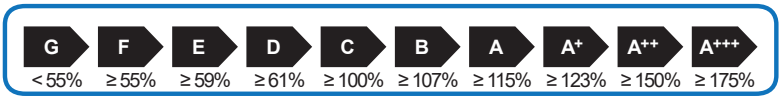
[2] For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the rated calorific load $P_{designh}$, and the rated heat output of the backup heater P_{sup} is equal to the calorific output of the extra backup heating (Tj).

[3] If Cdh is not determined by measurement then the default degradation coefficient is Cdh=0.9.

5.2.1 Package datasheet

Outside sensor included in the combined package	
Controller class	II
Seasonal efficiency contribution	2%
Modulating room thermostat references (outdoor sensor included in the package)	074208 (Navilink A59) 074213 (Navilink A75) 074214 (Navilink A78)
Regulator class	VI
Seasonal efficiency contribution	4%

☞ Application 35°C



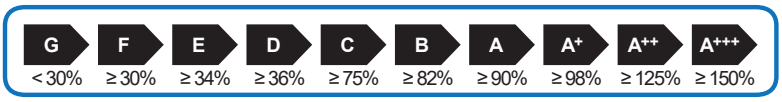
Product name **Alfea ...**	**Extensa A.I. 5**		**Extensa A.I. 6**		**Extensa A.I. 8**		**Extensa A.I. 10**	
Export Code (with backup) **Export Code (without backup)**	**526220** **526230**		**526221** **526231**		**526222** **526232**		**526223** **526233**	
Seasonal energy efficiency of heat pump for space heating	169%		169%		156%		155%	
Type of temperature control								
- Outdoor sensor (included in the package)	class II	-	class II	-	class II	-	class II	-
- Modulating room thermostat (outdoor sensor included in the package)	-	class VI	-	class VI	-	class VI	-	class VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **in average climate conditions**	171%	173%	171%	173%	158%	160%	157%	159%
Energy class of the package	A++	A++	A++	A++	A++	A++	A++	A++
Seasonal space heating energy efficiency of package **in warmer climate conditions**	219%	221%	214%	216%	209%	211%	198%	200%
Seasonal space heating energy efficiency of package **in colder climate conditions**	NA							

The energy efficiency of the combined product provided for in this datasheet may not correspond to its actual energy efficiency once the combined product has been installed in a building, as the efficiency is influenced by other factors such as heat loss in the distribution system and the capacity of the products in relation to building size and characteristics.

Product name **Alfea ...**	**Extensa A.I. 13**		**Extensa + 16**	
Export Code (with backup) **Export Code (without backup)**	**-** **526234**		**-** **526235**	
Seasonal energy efficiency of heat pump for space heating	151%		148%	
Type of temperature control				
- Outdoor sensor (included in the package)	class II	-	class II	-
- Modulating room thermostat (outdoor sensor included in the package)	-	class VI	-	class VI
Bonus	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **in average climate conditions**	153%	155%	150%	152%
Energy class of the package	A++	A++	A++	A++
Seasonal space heating energy efficiency of package **in warmer climate conditions**	172%	175%	178%	180%
Seasonal space heating energy efficiency of package **in colder climate conditions**	NA			

The energy efficiency of the combined product provided for in this datasheet may not correspond to its actual energy efficiency once the combined product has been installed in a building, as the efficiency is influenced by other factors such as heat loss in the distribution system and the capacity of the products in relation to building size and characteristics.

☞ Application 55°C



Product name **Alfea ...**	**Extensa A.I. 5**		**Extensa A.I. 6**		**Extensa A.I. 8**		**Extensa A.I. 10**	
Export Code (with backup) **Export Code (without backup)**	**526220** **526230**		**526221** **526231**		**526222** **526232**		**526223** **526233**	
Seasonal energy efficiency of heat pump for space heating	115%		115%		118%		113%	
Type of temperature control								
- Outdoor sensor (included in the package)	class II	-	class II	-	class II	-	class II	-
- Modulating room thermostat (outdoor sensor included in the package)	-	class VI	-	class VI	-	class VI	-	class VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **in average climate conditions**	117%	119%	117%	119%	120%	122%	115%	117%
Energy class of the package	A+	A+	A+	A+	A+	A+	A+	A+
Seasonal space heating energy efficiency of package **in warmer climate conditions**	141%	143%	140%	142%	140%	142%	138%	140%
Seasonal space heating energy efficiency of package **in colder climate conditions**	NA							

The energy efficiency of the combined product provided for in this datasheet may not correspond to its actual energy efficiency once the combined product has been installed in a building, as the efficiency is influenced by other factors such as heat loss in the distribution system and the capacity of the products in relation to building size and characteristics.

Product name **Alfea ...**	**Extensa A.I. 13**		**Extensa + 16**	
Export Code (with backup) **Export Code (without backup)**	**-** **526234**		**-** **526235**	
Seasonal energy efficiency of heat pump for space heating	112%		113%	
Type of temperature control				
- Outdoor sensor (included in the package)	class II	-	class II	-
- Modulating room thermostat (outdoor sensor included in the package)	-	class VI	-	class VI
Bonus	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **in average climate conditions**	114%	116%	115%	117%
Energy class of the package	A+	A+	A+	A+
Seasonal space heating energy efficiency of package **in warmer climate conditions**	122%	124%	121%	123%
Seasonal space heating energy efficiency of package **in colder climate conditions**	NA			

The energy efficiency of the combined product provided for in this datasheet may not correspond to its actual energy efficiency once the combined product has been installed in a building, as the efficiency is influenced by other factors such as heat loss in the distribution system and the capacity of the products in relation to building size and characteristics.

5.3 Excellia A.I. ErP specifications

Trade name / Product name: Atlantic / Alféa Excellia A.I. ...			**11**		**14**		**tri 11**		**tri 14**		**tri 16**	
Export Code (with backup) Export Code (without backup)			**526350 526360**		**526351 526361**		**526352 526362**		**526353 526363**		**526354 526364**	
Heating applications			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Air/water heat pump			Yes									
Equipped with a backup heater			Yes (mandatory accessory)									
Average climate - Space heating												
Energy class (product)	-	-	A++	A+	A++	A+	A++	A+	A++	A+	A++	A+
Energy class (package)	-	-	A++	A+	A++	A+	A++	A+	A++	A+	A++	A+
Rated heat output (2)	P_{rated}	kW	11	9	13	11	11	9	13	11	14	13
Rated energy efficiency	η_s	%	151	112	148	113	154	112	150	117	149	117
Rated energy efficiency with outside sensor (1)	η_s	%	153	114	150	115	156	114	152	119	151	119
Rated energy efficiency with room sensor (1)	η_s	%	155	116	152	117	158	116	154	121	153	121
Annual energy consumption	Q_{he}	kWh	6062	6623	6824	8041	5930	6669	6738	7803	7408	9062
Colder climate - Space heating												
Rated heat output (2)	P_{rated}	kW	15	13	17	15	15	12	17	15	18	17
Rated energy efficiency	η_s	%	121	100	118	100	124	100	122	100	119	100
Annual energy consumption	Q_{he}	kWh	11048	11994	12834	14130	10911	11554	12567	13692	13710	15667
Warmer climate - Space heating												
Rated heat output (2)	P_{rated}	kW	10	8	11	9	11	9	12	10	13	11
Rated energy efficiency	η_s	%	171	120	176	119	200	134	192	134	185	138
Annual energy consumption	Q_{he}	kWh	3246	3573	3321	3719	2804	3450	3141	3643	3571	4040
Acoustic data												
Sound power level of hydraulic unit	L_{WA}	dB (A)	46		46		46		46		46	
Sound power level of outdoor unit	L_{WA}	dB (A)	69		69		68		69		69	
Declared heat output with a partial load for an indoor temperature of 20°C and an outdoor temperature of Tj												
Tj = -7°C	Pdh	kW	10.0	8.2	11.1	10.0	10.0	8.2	11.1	10.0	12.0	11.5
Tj = +2°C	Pdh	kW	6.1	5.0	6.7	6.1	6.1	5.0	6.7	6.1	7.3	7.0
Tj = +7°C	Pdh	kW	6.2	5.9	6.2	5.9	6.2	5.9	6.2	5.9	6.3	5.8
Tj = +12°C	Pdh	kW	7.4	7.0	7.3	7.1	7.4	7.0	7.3	7.1	7.4	7.1
Tj = bivalent temperature	Pdh	kW	10.0	8.2	11.1	10.0	10.0	8.2	11.1	10.0	12.0	11.5
Tj = operating temperature limit	Pdh	kW	10.0	8.0	10.8	9.3	9.9	8.1	10.8	9.3	11.7	10.3
Bivalent temperature	T_{biv}	°C	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7
Degradation coefficient (3)	Cdh	-	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Trade name / Product name: Atlantic / Alféa Excellia A.I. ...			**11**		**14**		**tri 11**		**tri 14**		**tri 16**	
Export Code (with backup) **Export Code (without backup)**			**526350** **526360**		**526351** **526361**		**526352** **526362**		**526353** **526363**		**526354** **526364**	
Heating applications			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Declared coefficients of performance with a partial load for an indoor temperature of 20°C and an outdoor temperature of Tj												
Tj = -7°C	COP_d	-	2.57	1.89	2.51	1.89	2.70	1.92	2.54	1.95	2.43	1.83
Tj = +2°C	COP_d	-	3.65	2.80	3.60	2.77	3.70	2.75	3.70	2.87	3.62	2.89
Tj = +7°C	COP_d	-	5.35	3.76	5.35	3.89	5.49	3.93	5.39	4.07	5.51	4.12
Tj = +12°C	COP_d	-	6.90	4.81	6.90	5.11	7.09	5.16	7.04	5.38	7.16	5.50
Tj = bivalent temperature	COP_d	-	2.57	1.89	2.51	1.89	2.70	1.92	2.54	1.95	2.43	1.83
Tj = operating temperature limit	COP_d	-	2.24	1.66	2.38	1.67	2.29	1.61	2.40	1.64	2.28	1.63
For air/water heat pumps: operating temperature limit	TOL	°C	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Maximum heating water operating temperature	WTOL	°C	60	60	60	60	60	60	60	60	60	60
Backup heater												
Rated heat output [2]	P_{sup}	kW	1.3	1.3	1.7	2.1	1.4	1.2	1.7	2.0	1.9	2.7
Type of energy used	-	-	Electric									
Electricity consumption in modes other than the active mode												
Shutdown mode	P_{OFF}	W	8	8	8	8	14	14	14	14	14	14
Thermostat shutdown mode	P_{TO}	W	45	22	72	25	44	32	66	43	88	32
Standby mode	P_{SB}	W	12	12	12	12	17	17	17	17	17	17
Casing resistance mode	P_{CK}	W	0	0	0	0	0	0	0	0	0	0
Other characteristics												
Power control	-	-	Inverter									
For air/water heat pumps, rated air flow rate, outdoors	-	m^3/h	6200								6900	

[1] The calculation details are available on the package datasheet. The room unit refers to: sensors, thermostats and remote controllers included, or not included, in the kits.

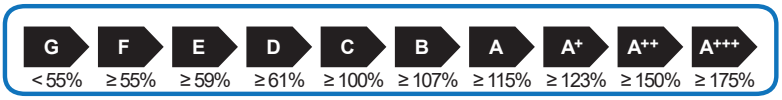
[2] For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the rated calorific load $P_{designh}$, and the rated heat output of the backup heater P_{sup} is equal to the calorific output of the extra backup heating (Tj).

[3] If Cdh is not determined by measurement then the default degradation coefficient is Cdh=0.9.

5.3.1 Package datasheet

Outside sensor included in the combined package	
Controller class	II
Seasonal efficiency contribution	2%
Modulating room thermostat references (outdoor sensor included in the package)	074208 (Navilink A59) 074213 (Navilink A75) 074214 (Navilink A78)
Regulator class	VI
Seasonal efficiency contribution	4%

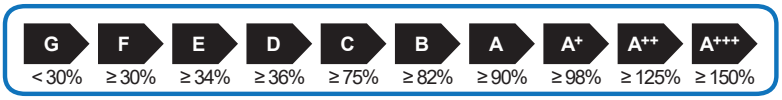
☞ **Application 35°C**



Product name: Alféa Excellia A.I. ...	**11**		**14**		**tri 11**		**tri 14**		**tri 16**	
Export Code (with backup) **Export Code (without backup)**	**526350** **526360**		**526351** **526361**		**526352** **526362**		**526353** **526363**		**526354** **526364**	
Seasonal energy efficiency of heat pump for space heating	151%		148%		154%		150%		149%	
Type of temperature control										
- Outdoor sensor (included in the package)	class II	-	class II	-	class II	-	class II	-	class II	-
- Modulating room thermostat (outdoor sensor included in the package)	-	class VI	-	class VI	-	class VI	-	class VI	-	class VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **in average climate conditions**	153%	155%	150%	152%	156%	158%	152%	154%	151%	153%
Energy class of the package	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
Seasonal space heating energy efficiency of package **in warmer climate conditions**	173%	175%	178%	180%	207%	209%	198%	200%	190%	192%
Seasonal space heating energy efficiency of package **in colder climate conditions**	123%	125%	120%	122%	126%	128%	124%	126%	121%	123%

The energy efficiency of the combined product provided for in this datasheet may not correspond to its actual energy efficiency once the combined product has been installed in a building, as the efficiency is influenced by other factors such as heat loss in the distribution system and the capacity of the products in relation to building size and characteristics.

☞ Application 55°C



Product name: Alféa Excellia A.I. ...	**11**		**14**		**tri 11**		**tri 14**		**tri 16**	
Export Code (with backup) **Export Code (without backup)**	**526350** **526360**		**526351** **526361**		**526352** **526362**		**526353** **526363**		**526354** **526364**	
Seasonal energy efficiency of heat pump for space heating	112%		113%		112%		117%		117%	
Type of temperature control										
- Outdoor sensor (included in the package)	class II	-	class II	-	class II	-	class II	-	class II	-
- Modulating room thermostat (outdoor sensor included in the package)	-	class VI	-	class VI	-	class VI	-	class VI	-	class VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **in average climate conditions**	114%	116%	115%	117%	114%	116%	119%	121%	119%	121%
Energy class of the package	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
Seasonal space heating energy efficiency of package **in warmer climate conditions**	122%	124%	121%	123%	138%	140%	139%	141%	143%	145%
Seasonal space heating energy efficiency of package **in colder climate conditions**	102%	104%	102%	104%	102%	104%	102%	104%	102%	104%

The energy efficiency of the combined product provided for in this datasheet may not correspond to its actual energy efficiency once the combined product has been installed in a building, as the efficiency is influenced by other factors such as heat loss in the distribution system and the capacity of the products in relation to building size and characteristics.

5.4 Extensa Duo A.I. ErP specifications

Trade name / Product name:	Atlantic / Alféa ...		Extensa Duo A.I. 5		Extensa Duo A.I. 6		Extensa Duo A.I. 8		Extensa Duo A.I. 10	
Export Code (with backup) **Export Code (without backup)**			**526226** **526236**		**526227** **526237**		**526228** **526238**		**526229** **526239**	
Heating applications			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Air/water heat pump			Yes							
Equipped with a backup heater			Yes							
Heat pump combination heating appliance			Yes							
Average climate - Space heating										
Energy class (product)	-	-	A++	A+	A++	A+	A++	A+	A++	A+
Energy class (package)	-	-	A++	A+	A++	A+	A++	A+	A++	A+
Rated heat output (2)	P_{rated}	kW	4	4	5	5	7	6	8	8
Rated energy efficiency	η_s	%	169	115	169	115	156	118	155	113
Rated energy efficiency with outside sensor (1)	η_s	%	171	117	171	117	158	120	157	115
Rated energy efficiency with room sensor (1)	η_s	%	173	119	173	119	160	122	159	117
Annual energy consumption	Q_{he}	kWh	2160	3027	2505	3180	3375	3886	4415	5415
Average climate - Domestic hot water production										
Filling profile	-	-	L		L		L		L	
Energy class	-	-	A+		A+		A+		A+	
Energy efficiency	η_{wh}	%	120		120		120		120	
Annual energy consumption	AEC	kWh	880		880		880		880	
Daily electricity consumption	Q_{elec}	kWh	4		4		4		4	
Colder climate - Space heating										
Rated heat output (2)	P_{rated}	kW	NA							
Rated energy efficiency	η_s	%								
Annual energy consumption	Q_{he}	kWh								
Colder climate - Domestic hot water production										
Filling profile	-	-	NA							
Energy efficiency	η_{wh}	%								
Annual energy consumption	AEC	kWh								
Daily electricity consumption	Q_{elec}	kWh								
Warmer climate - Space heating										
Rated heat output (2)	P_{rated}	kW	4	4	5	4	6	5	8	6
Rated energy efficiency	η_s	%	217	139	212	138	207	138	196	136
Annual energy consumption	Q_{he}	kWh	1090	1423	1167	1531	1439	1934	2203	2422
Warmer climate - Domestic hot water production										
Filling profile	-	-	L		L		L		L	
Energy efficiency	η_{wh}	%	120		120		120		120	
Annual energy consumption	AEC	kWh	880		880		880		880	
Daily electricity consumption	Q_{elec}	kWh	4		4		4		4	

Trade name / Product name:	**Atlantic / Alféa ...**		**Extensa Duo A.I. 5**		**Extensa Duo A.I. 6**		**Extensa Duo A.I. 8**		**Extensa Duo A.I. 10**	
Export Code (with backup) **Export Code (without backup)**			**526226** **526236**		**526227** **526237**		**526228** **526238**		**526229** **526239**	
Heating applications			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Acoustic data										
Sound power level of hydraulic unit	L_{WA}	dB (A)	46							
Sound power level of outdoor unit	L_{WA}	dB (A)	63		63		69		69	
Declared heat output with a partial load for an indoor temperature of 20°C and an outdoor temperature of Tj										
Tj = -7°C	Pdh	kW	4.0	3.8	4.6	4.0	5.8	5.3	7.5	6.7
Tj = +2°C	Pdh	kW	2.4	2.3	2.8	2.5	3.5	3.1	4.5	4.1
Tj = +7°C	Pdh	kW	2.0	1.7	2.3	1.7	2.3	2.0	3.5	3.2
Tj = +12°C	Pdh	kW	2.3	2.1	2.3	2.1	2.4	2.2	4.0	4.0
Tj = bivalent temperature	Pdh	kW	4.0	3.8	4.6	4.0	5.8	5.3	7.5	6.7
Tj = operating temperature limit	Pdh	kW	3.9	3.2	4.5	3.5	5.6	4.9	7.0	5.9
Bivalent temperature	T_{biv}	°C	-7	-7	-7	-7	-7	-7	-7	-7
Degradation coefficient (3)	Cdh	-	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Declared coefficients of performance with a partial load for an indoor temperature of 20°C and an outdoor temperature of Tj										
Tj = -7°C	COP_d	-	2.86	1.86	2.65	1.79	2.35	1.77	2.35	1.74
Tj = +2°C	COP_d	-	4.10	2.82	4.17	2.86	3.82	2.93	3.81	2.74
Tj = +7°C	COP_d	-	5.00	4.00	5.99	4.03	5.69	4.12	5.71	4.10
Tj = +12°C	COP_d	-	8.12	5.84	8.29	5.84	8.16	5.81	7.16	5.72
Tj = bivalent temperature	COP_d	-	2.86	1.86	2.65	1.79	2.35	1.77	2.35	1.74
Tj = operating temperature limit	COP_d	-	2.65	1.54	2.57	1.56	2.02	1.47	2.16	1.44
For air/water heat pumps: operating temperature limit	TOL	°C	-10	-10	-10	-10	-10	-10	-10	-10
Maximum heating water operating temperature	WTOL	°C	55	55	55	55	55	55	55	55
Backup heater										
Rated heat output (2)	P_{sup}	kW	0.6	1.1	0.7	1.0	0.9	1.2	1.4	1.7
Type of energy used	-	-	Electric							
Electricity consumption in modes other than the active mode										
Shutdown mode	P_{OFF}	W	6	6	6	6	6	6	5	5
Thermostat shutdown mode	P_{TO}	W	19	17	23	16	30	16	43	22
Standby mode	P_{SB}	W	10	10	10	10	9	9	8	8
Casing resistance mode	P_{CK}	W	0	0	0	0	0	0	0	0
Other characteristics										
Power control	-	-	Inverter							
For air/water heat pumps, rated air flow rate, outdoors	-	m^3/h	2070		2340		3600		6200	

(1) The calculation details are available on the package datasheet. The room unit refers to: sensors, thermostats and remote controllers included, or not included, in the kits.

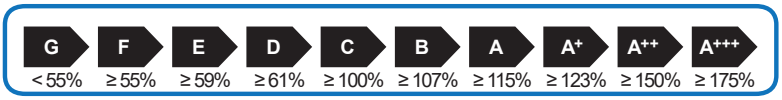
(2) For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the rated calorific load $P_{designh}$, and the rated heat output of the backup heater P_{sup} is equal to the calorific output of the extra backup heating (Tj).

(3) If Cdh is not determined by measurement then the default degradation coefficient is Cdh=0.9.

5.4.1 Package datasheet

Outside sensor included in the combined package	
Controller class	II
Seasonal efficiency contribution	2%
Modulating room thermostat references (outdoor sensor included in the package)	074208 (Navilink A59) 074213 (Navilink A75) 074214 (Navilink A78)
Regulator class	VI
Seasonal efficiency contribution	4%

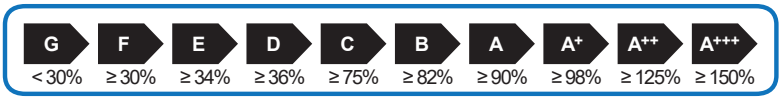
☞ **Application 35°C**



Product name **Alfea ...**	**Extensa Duo A.I. 5**		**Extensa Duo A.I. 6**		**Extensa Duo A.I. 8**		**Extensa Duo A.I. 10**	
Export Code (with backup) **Export Code (without backup)**	**526226** **526236**		**526227** **526237**		**526228** **526238**		**526229** **526239**	
Seasonal energy efficiency of heat pump for space heating	169%		169%		157%		155%	
Type of temperature control								
- Outdoor sensor (included in the package)	class II	-	class II	-	class II	-	class II	-
- Modulating room thermostat (outdoor sensor included in the package)	-	class VI	-	class VI	-	class VI	-	class VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **in average climate conditions**	171%	173%	171%	173%	159%	161%	157%	159%
Energy class of the package	A++	A++	A++	A++	A++	A++	A++	A++
Seasonal space heating energy efficiency of package **in warmer climate conditions**	219%	221%	214%	215%	209%	211%	198%	200%
Seasonal space heating energy efficiency of package **in colder climate conditions**	NA							

The energy efficiency of the combined product provided for in this datasheet may not correspond to its actual energy efficiency once the combined product has been installed in a building, as the efficiency is influenced by other factors such as heat loss in the distribution system and the capacity of the products in relation to building size and characteristics.

☞ Application 55°C



Product name **Alfea ...**	**Extensa Duo A.I. 5**		**Extensa Duo A.I. 6**		**Extensa Duo A.I. 8**		**Extensa Duo A.I. 10**	
Export Code (with backup) **Export Code (without backup)**	**526226** **526236**		**526227** **526237**		**526228** **526238**		**526229** **526239**	
Seasonal energy efficiency of heat pump for space heating	115%		115%		118%		113%	
Type of temperature control								
- Outdoor sensor (included in the package)	class II	-	class II	-	class II	-	class II	-
- Modulating room thermostat (outdoor sensor included in the package)	-	class VI	-	class VI	-	class VI	-	class VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **in average climate conditions**	117%	119%	117%	119%	120%	122%	115%	117%
Energy class of the package	A+	A+	A+	A+	A+	A+	A+	A+
Seasonal space heating energy efficiency of package **in warmer climate conditions**	141%	143%	140%	142%	140%	142%	138%	140%
Seasonal space heating energy efficiency of package **in colder climate conditions**	NA							

The energy efficiency of the combined product provided for in this datasheet may not correspond to its actual energy efficiency once the combined product has been installed in a building, as the efficiency is influenced by other factors such as heat loss in the distribution system and the capacity of the products in relation to building size and characteristics.

5.5 Excellia Duo A.I. ErP specifications

Trade name / Product name: Atlantic / Alféa Excellia Duo A.I.			**11**		**14**		**tri 11**		**tri 14**		**tri 16**	
Export Code (with backup) Export Code (without backup)			**526355 526365**		**526356 526366**		**526357 526367**		**526358 526368**		**526359 526369**	
Heating applications			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Air/water heat pump			Yes									
Equipped with a backup heater			Yes (mandatory accessory)									
Heat pump combination heating appliance			Yes									
Average climate - Space heating												
Energy class (product)	-	-	A++	A+	A+	A+	A++	A+	A++	A+	A+	A+
Energy class (package)	-	-	A++	A+	A++	A+	A++	A+	A++	A+	A++	A+
Rated heat output (2)	P_{rated}	kW	11	9	13	11	11	9	13	11	14	13
Rated energy efficiency	η_s	%	151	112	148	113	154	112	150	117	149	117
Rated energy efficiency with outside sensor (1)	η_s	%	153	114	150	115	156	114	152	119	151	119
Rated energy efficiency with room sensor (1)	η_s	%	155	116	152	117	158	116	154	121	153	121
Annual energy consumption	Q_{he}	kWh	6062	6623	6824	8041	5930	6669	6738	7803	7408	9062
Average climate - Domestic hot water production												
Filling profile	-	-	L									
Energy class	-	-	A									
Energy efficiency	η_{wh}	%	88									
Annual energy consumption	AEC	kWh	1166									
Daily electricity consumption	Q_{elec}	kWh	5.3									
Colder climate - Space heating												
Rated heat output (2)	P_{rated}	kW	15	13	17	15	15	12	17	15	18	17
Rated energy efficiency	η_s	%	121	100	118	100	124	100	122	100	119	100
Annual energy consumption	Q_{he}	kWh	11048	11994	12834	14130	10911	11554	12567	13692	13710	15667
Colder climate - Domestic hot water production												
Filling profile	-	-	L									
Energy efficiency	η_{wh}	%	79									
Annual energy consumption	AEC	kWh	1320									
Daily electricity consumption	Q_{elec}	kWh	6.0									
Warmer climate - Space heating												
Rated heat output (2)	P_{rated}	kW	10	8	11	9	11	9	12	10	13	11
Rated energy efficiency	η_s	%	171	120	176	119	200	134	192	134	185	138
Annual energy consumption	Q_{he}	kWh	3246	3573	3321	3719	2804	3450	3141	3643	3571	4040
Warmer climate - Domestic hot water production												
Filling profile	-	-	L									
Energy efficiency	η_{wh}	%	88									
Annual energy consumption	AEC	kWh	1166									
Daily electricity consumption	Q_{elec}	kWh	5.3									

Trade name / Product name: Atlantic / Alféa Excellia Duo A.I.			**11**		**14**		**tri 11**		**tri 14**		**tri 16**	
Export Code (with backup) Export Code (without backup)			**526355 526365**		**526356 526366**		**526357 526367**		**526358 526368**		**526359 526369**	
Heating applications			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Acoustic data												
Sound power level of hydraulic unit	L_{WA}	dB (A)	46		46		46		46		46	
Sound power level of outdoor unit	L_{WA}	dB (A)	69		69		68		69		69	
Declared heat output with a partial load for an indoor temperature of 20°C and an outdoor temperature of Tj												
Tj = -7°C	Pdh	kW	10.0	8.2	11.1	10.0	10.0	8.2	11.1	10.0	12.0	11.5
Tj = +2°C	Pdh	kW	6.1	5.0	6.7	6.1	6.1	5.0	6.7	6.1	7.3	7.0
Tj = +7°C	Pdh	kW	6.2	5.9	6.2	5.9	6.2	5.9	6.2	5.9	6.3	5.8
Tj = +12°C	Pdh	kW	7.4	7.0	7.3	7.1	7.4	7.0	7.3	7.1	7.4	7.1
Tj = bivalent temperature	Pdh	kW	10.0	8.2	11.1	10.0	10.0	8.2	11.1	10.0	12.0	11.5
Tj = operating temperature limit	Pdh	kW	10.0	8.0	10.8	9.3	9.9	8.1	10.8	9.3	11.7	10.3
Bivalent temperature	T_{biv}	°C	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7
Degradation coefficient (3)	Cdh	-	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Declared coefficients of performance with a partial load for an indoor temperature of 20°C and an outdoor temperature of Tj												
Tj = -7°C	COP_d	-	2.57	1.89	2.51	1.89	2.70	1.92	2.54	1.95	2.43	1.83
Tj = +2°C	COP_d	-	3.65	2.80	3.60	2.77	3.70	2.75	3.70	2.87	3.62	2.89
Tj = +7°C	COP_d	-	5.35	3.76	5.35	3.89	5.49	3.93	5.39	4.07	5.51	4.12
Tj = +12°C	COP_d	-	6.90	4.81	6.90	5.11	7.09	5.16	7.04	5.38	7.16	5.50
Tj = bivalent temperature	COP_d	-	2.57	1.89	2.51	1.89	2.70	1.92	2.54	1.95	2.43	1.83
Tj = operating temperature limit	COP_d	-	2.24	1.66	2.38	1.67	2.29	1.61	2.40	1.64	2.28	1.63
For air/water heat pumps: operating temperature limit	TOL	°C	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Maximum heating water operating temperature	WTOL	°C	60	60	60	60	60	60	60	60	60	60
Backup heater												
Rated heat output (2)	P_{sup}	kW	1.3	1.3	1.7	2.1	1.4	1.1	1.7	2.0	2.0	2.7
Type of energy used	-	-	Electric									
Electricity consumption in modes other than the active mode												
Shutdown mode	P_{OFF}	W	8	8	8	8	14	14	14	14	14	14
Thermostat shutdown mode	P_{TO}	W	45	22	72	25	44	32	66	43	88	32
Standby mode	P_{SB}	W	12	12	12	12	17	17	17	17	17	17
Casing resistance mode	P_{CK}	W	0	0	0	0	0	0	0	0	0	0
Other characteristics												
Power control	-	-	Inverter									
For air/water heat pumps, rated air flow rate, outdoors	-	m^3/h	6200								6900	

(1) The calculation details are available on the package datasheet. The room unit refers to: sensors, thermostats and remote controllers included, or not included, in the kits.

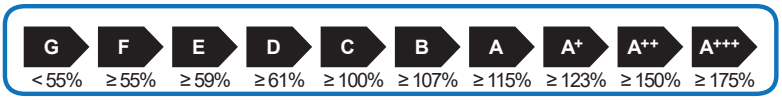
(2) For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the rated calorific load $P_{designh}$, and the rated heat output of the backup heater P_{sup} is equal to the calorific output of the extra backup heating (Tj).

(3) If Cdh is not determined by measurement then the default degradation coefficient is Cdh=0.9.

5.5.1 Package datasheet

Outside sensor included in the combined package	
Controller class	II
Seasonal efficiency contribution	2%
Modulating room thermostat references (outdoor sensor included in the package)	074208 (Navilink A59) 074213 (Navilink A75) 074214 (Navilink A78)
Regulator class	VI
Seasonal efficiency contribution	4%

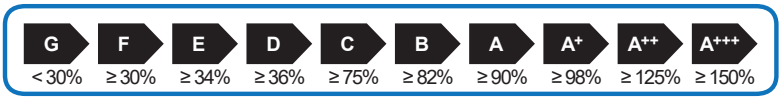
☞ **Application 35°C**



Product name **Alfea Excellia...**	**Duo A.I. 11**		**Duo A.I. 14**		**Duo A.I. tri 11**		**Duo A.I. tri 14**		**Duo A.I. tri 16**	
Export Code (with backup) **Export Code (without backup)**	**526355** **526365**		**526356** **526366**		**526357** **526367**		**526358** **526368**		**526359** **526369**	
Seasonal energy efficiency of heat pump for space heating	151%		148%		154%		150%		149%	
Type of temperature control										
- Outdoor sensor (included in the package)	class II	-	class II	-	class II	-	class II	-	class II	-
- Modulating room thermostat (outdoor sensor included in the package)	-	class VI	-	class VI	-	class VI	-	class VI	-	class VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **in average climate conditions**	153%	155%	150%	152%	156%	158%	152%	154%	151%	153%
Energy class of the package	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
Seasonal space heating energy efficiency of package **in warmer climate conditions**	173%	175%	178%	180%	207%	209%	198%	200%	190%	192%
Seasonal space heating energy efficiency of package **in colder climate conditions**	123%	125%	120%	122%	126%	128%	124%	126%	121%	123%

The energy efficiency of the combined product provided for in this datasheet may not correspond to its actual energy efficiency once the combined product has been installed in a building, as the efficiency is influenced by other factors such as heat loss in the distribution system and the capacity of the products in relation to building size and characteristics.

☞ Application 55°C



Product name **Alfea Excellia...**	**Duo A.I. 11**		**Duo A.I. 14**		**Duo A.I. tri 11**		**Duo A.I. tri 14**		**Duo A.I. tri 16**	
Export Code (with backup) **Export Code (without backup)**	**526355** **526365**		**526356** **526366**		**526357** **526367**		**526358** **526368**		**526359** **526369**	
Seasonal energy efficiency of heat pump for space heating	112%		113%		112%		117%		117%	
Type of temperature control										
- Outdoor sensor (included in the package)	class II	-	class II	-	class II	-	class II	-	class II	-
- Modulating room thermostat (outdoor sensor included in the package)	-	class VI	-	class VI	-	class VI	-	class VI	-	class VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **in average climate conditions**	114%	116%	115%	117%	114%	116%	119%	121%	119%	121%
Energy class of the package	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
Seasonal space heating energy efficiency of package **in warmer climate conditions**	122%	124%	121%	123%	138%	140%	139%	141%	143%	145%
Seasonal space heating energy efficiency of package **in colder climate conditions**	102%	104%	102%	104%	102%	104%	102%	104%	102%	104%

The energy efficiency of the combined product provided for in this datasheet may not correspond to its actual energy efficiency once the combined product has been installed in a building, as the efficiency is influenced by other factors such as heat loss in the distribution system and the capacity of the products in relation to building size and characteristics.

012

Keymark Certification :

012-002 - Alféa Excellia A.I. 11 - Alféa Excellia Duo A.I. 11
012-001 - Alféa Excellia A.I. 14 - Alféa Excellia Duo A.I. 14
012-003 - Alféa Excellia A.I. 11tri - Alféa Excellia Duo A.I. 11tri
012-004 - Alféa Excellia A.I. 14tri - Alféa Excellia Duo A.I. 14tri
012-005 - Alféa Excellia A.I. 16tri - Alféa Excellia Duo A.I. 16tri

012-007 - Alféa Extensa A.I. 5 - Alféa Extensa Duo A.I. 5
012-008 - Alféa Extensa A.I. 6 - Alféa Extensa Duo A.I. 6
012-009 - Alféa Extensa A.I. 8 - Alféa Extensa Duo A.I. 8
012-010 - Alféa Extensa A.I. 10 - Alféa Extensa Duo A.I. 10

This appliance is marked with this symbol. It means that all electrical and electronic products must be strictly separated from household waste.
A specific recovery system for this type of product is in place in the countries of the European Union (*), Norway, Iceland and Liechtenstein.
Do not attempt to dismantle this product yourself. This can have adverse effects on your health and on the environment.
Refrigerant liquid, oil and other parts must be reprocessed by a qualified installer in accordance with applicable local and national laws.
In terms of recycling, this appliance must be processed by a specialised service and must not, under any circumstances, be thrown out with household waste, bulky waste or at a tip.
Please contact your heating engineer or After Sales service for further information.

* Depending on the national regulations of each member state.

Commissioning date:

Contact details of your heating engineer or After Sales service.

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