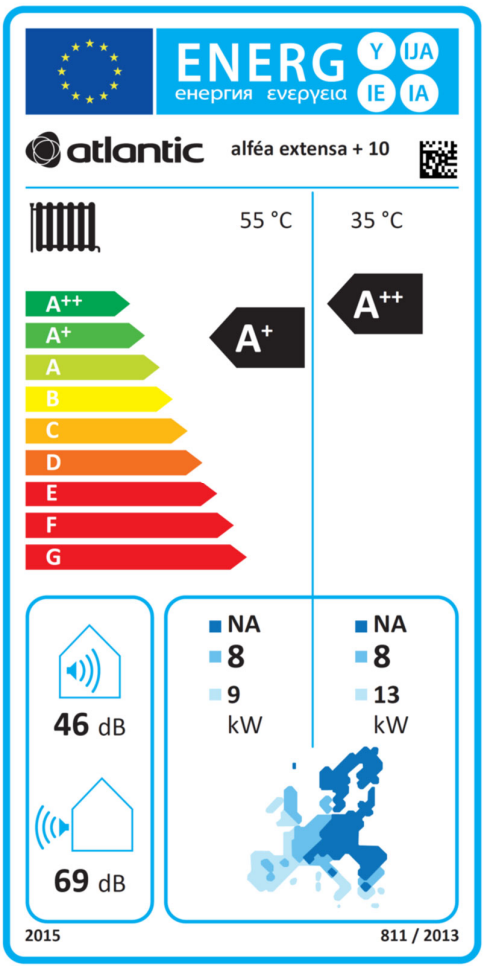
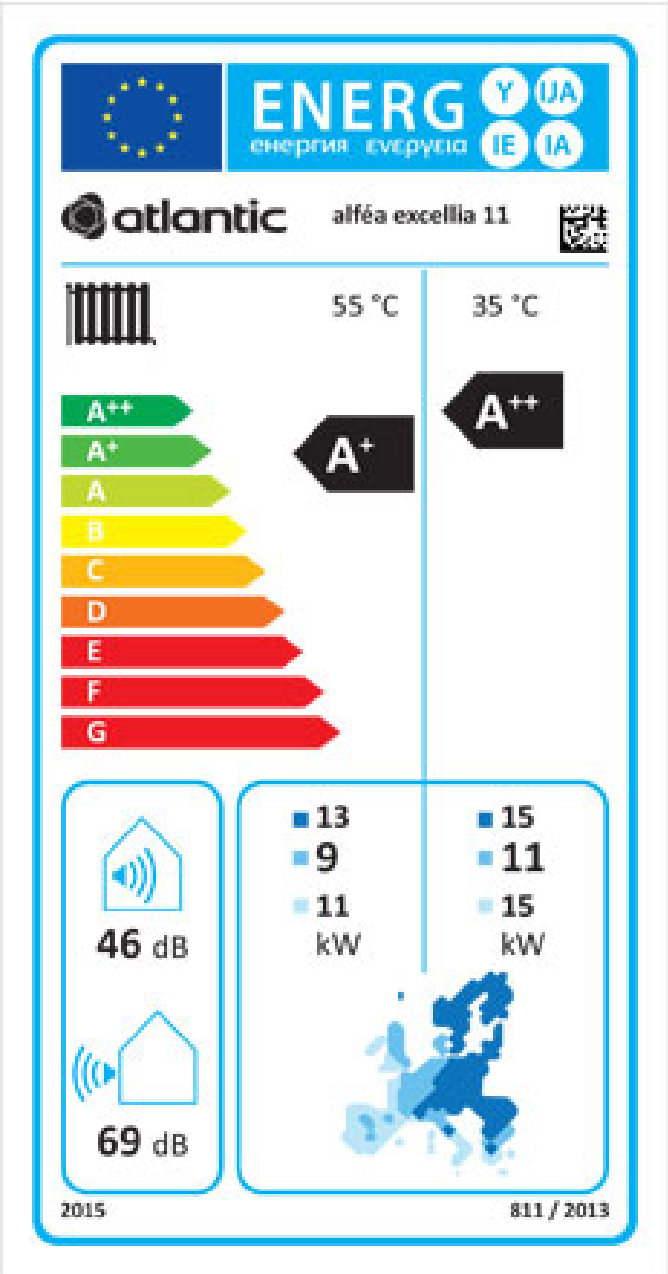
Excellia A.I.
ErP

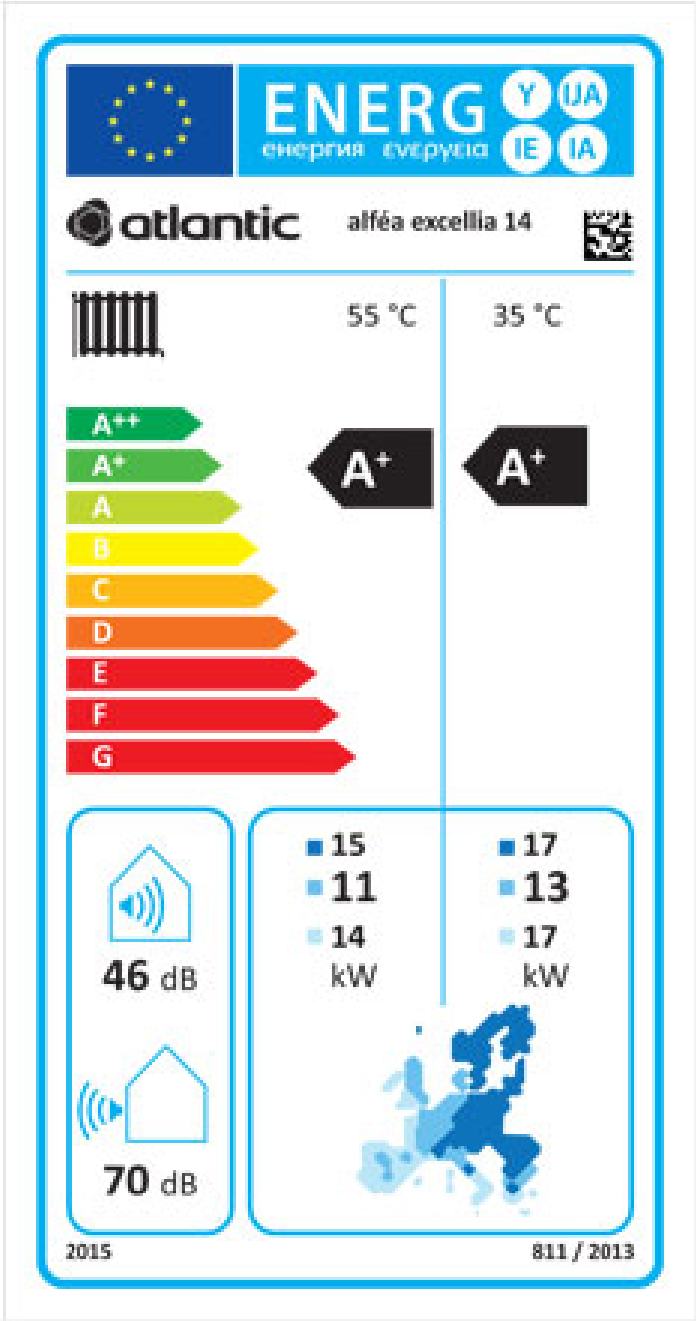
atlantic
POMPES À CHALEUR ET CHAUDIÈRES



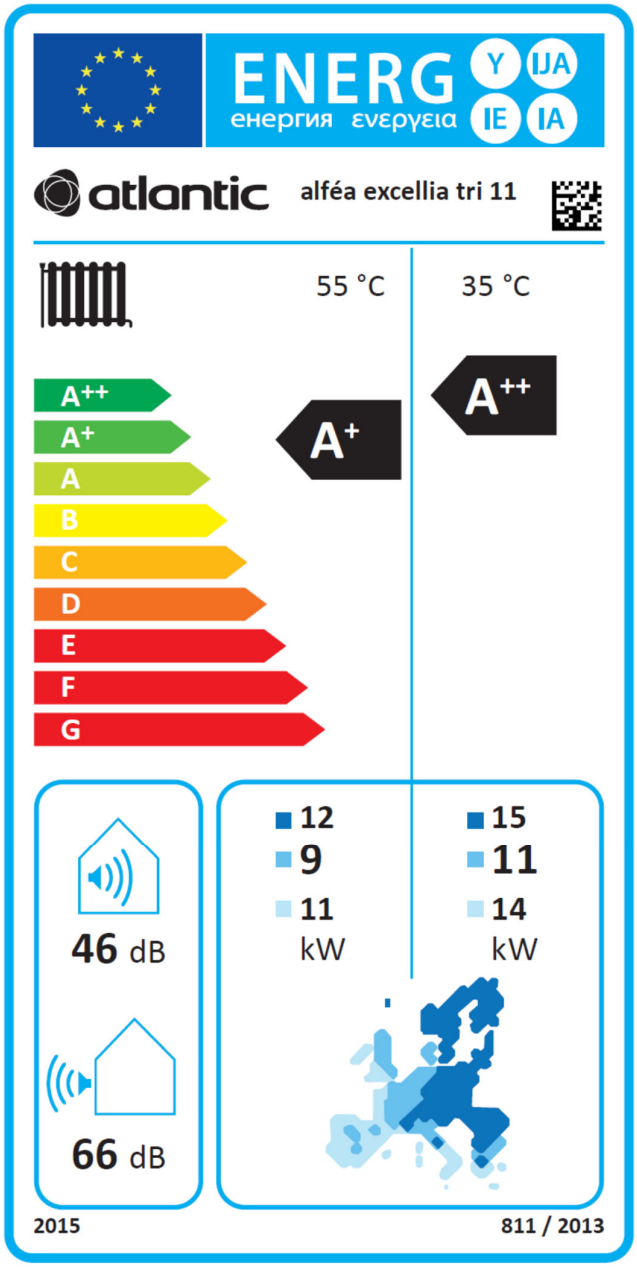
Alfea Excellia 11



Alfea Excellia 14



Alfea Excellia 11 tri



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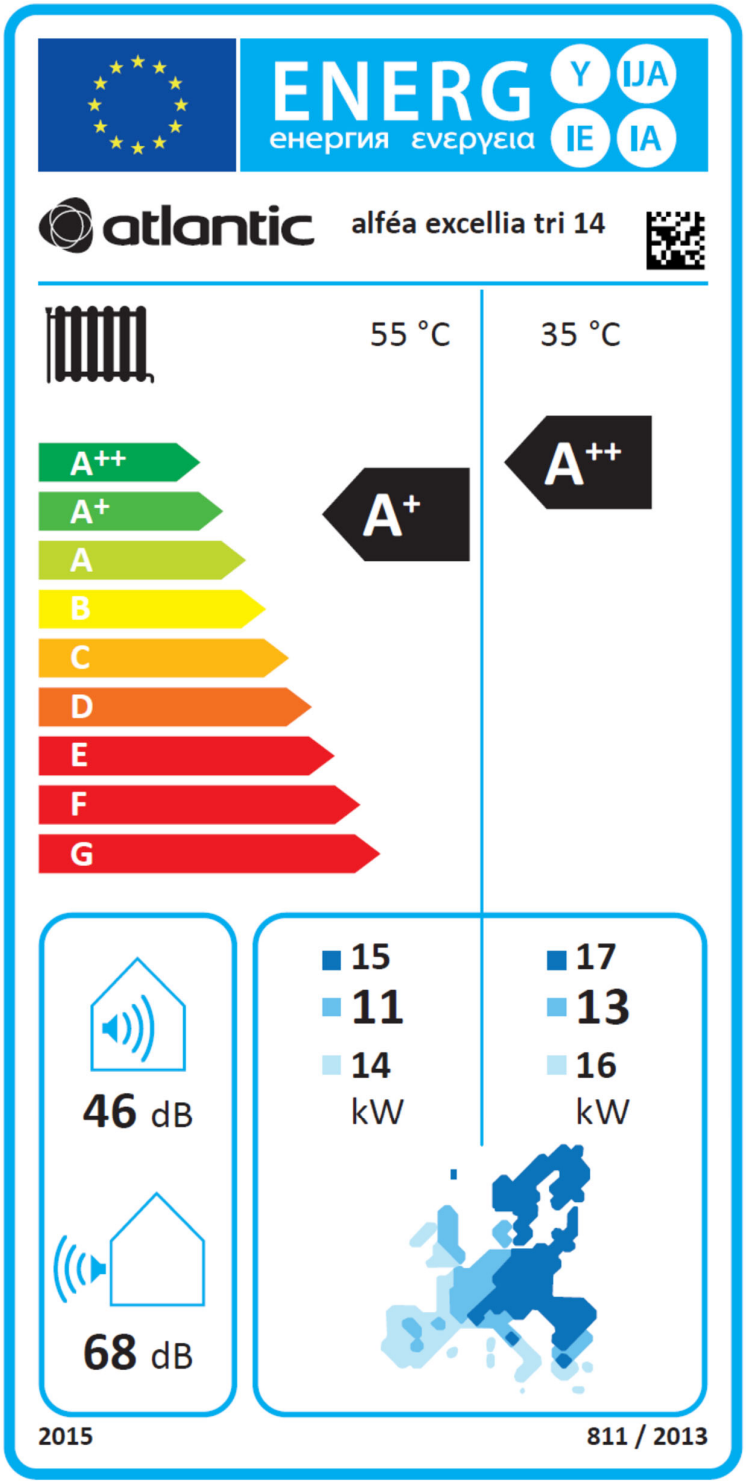
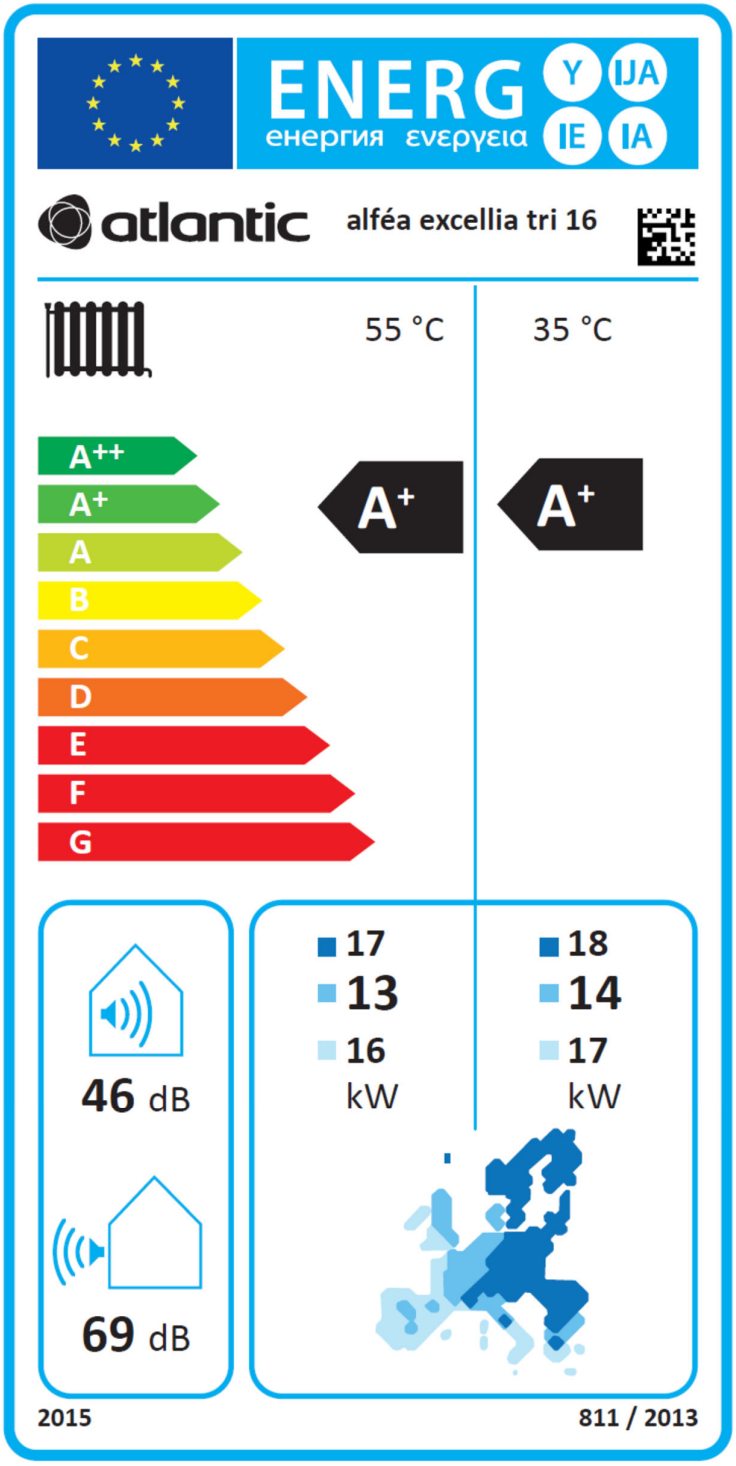


Alfea Excellia 16 tri



10 ErP performance values

10.1 ErP Definition

"ErP" includes two directives that are part of the program for the reduction of green house gas emission :

- Eco-design directive sets effiency thresholds and prohibits the sale of any product with efficiency lower than the set thresholds.
- According to labelling directive, energetic efficiency shall be displayed to encourage end-users to purchase energy-efficient products.

10.2 ErP specifications

Trade name / Models :	**atlantic / alféa ...**		**Alféa Excellia 11**		**Alféa Excellia 14**		**Alféa Excellia tri 11**		**Alféa Excellia tri 14**		**Alféa Excellia tri 16**	
Reference			**522 863**		**522 864**		**522 865**		**522 866**		**522 867**	
Heating ranges			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Air-to-water heat pump			Oui									
Equipped with a supplementary heater			Oui (option)									
Average climate - Space heating characteristics												
Energy class	-	-	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
Seasonal space heating energy efficiency	η_s	%	151	109	148	113	154	112	150	117	149	117
Seasonal efficiency for package with outdoor temperature sensor [1]	η_s	%	153	111	150	115	156	114	152	119	151	119
Seasonal efficiency with room unit [1]	η_s	%	155	113	152	117	158	116	154	121	153	121
Annual energy consumption	Q_{he}	kWh	6062	6842	6824	8041	5930	6669	6738	7803	7408	9062
Colder climate - Space heating characteristics												
Rated heat output [2]	P_{rated}	kW	15	13	17	15	15	12	17	15	18	17
Seasonal space heating 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 characteristics												
Rated heat output [2]	P_{rated}	kW	15	11	17	14	14	11	16	14	17	16
Seasonal space heating energy efficiency	η_s	%	194	117	187	128	194	123	191	133	192	139
Annual energy consumption	Q_{he}	kWh	3967	4529	4482	5220	3505	4432	4039	5064	4300	5522
Acoustic values												
Sound power level of indoor unit	L_{WA}	dBa	46		46		46		46		46	
Sound power level of outdoor unit	L_{WA}	dBa	69		70		66		68		69	
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature 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 = operation limit temperature	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 / Models :	atlantic / alféa ...		Alféa Excellia 11		Alféa Excellia 14		Alféa Excellia tri 11		Alféa Excellia tri 14		Alféa Excellia tri 16	
Reference			**522 863**		**522 864**		**522 865**		**522 866**		**522 867**	
Heating ranges			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj												
Tj = -7°C	COP_d	-	2,6	1,9	2,5	1,9	2,7	1,9	2,5	2,0	2,4	1,8
Tj = +2°C	COP_d	-	3,7	2,7	3,6	2,8	3,7	2,7	3,7	2,9	3,6	2,9
Tj = +7°C	COP_d	-	5,3	3,8	5,4	3,9	5,5	3,9	5,4	4,1	5,5	4,1
Tj = +12°C	COP_d	-	6,9	4,8	6,9	5,1	7,1	5,2	7,0	5,4	7,2	5,5
Tj = bivalent temperature	COP_d	-	2,6	1,9	2,5	1,9	2,7	1,9	2,5	2,0	2,4	1,8
Tj = operation limit temperature	COP_d	-	2,2	1,7	2,4	1,7	2,3	1,6	2,4	1,6	2,3	1,6
For Air-to-water heat pump: Operation limit temperature	TOL	°C	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Heating water operating limit temperature	WTOL	°C	60	60	60	60	60	60	60	60	60	60
Supplementary 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 input	-	-	Electricité									
Power consumption in modes other than active mode												
Off mode	P_{OFF}	W	8	8	8	8	14	14	14	14	14	14
Thermostat-off 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	12	17	17	17
Crankcase heater mode	P_{CK}	W	0	0	0	0	0	0	0	0	0	0
Other items												
Capacity control	-	-	inverter									
For Air-to-water heat pump, rated air flow rate	-	m^3/h	6200								6900	

(1) Seasonal efficiency calculation is detailed in package fiche - room units are available as option and includes: thermostat and room sensors, room unit controller wether they are, or not, integrated in kits.

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

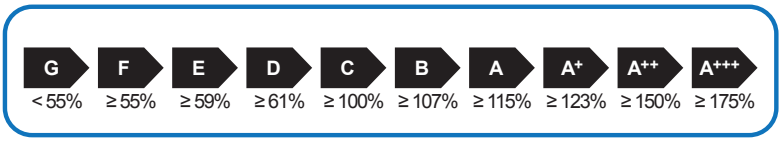
(3) If Cdh is not determinated by measurement then the default degradation coefficient is Cdh=0.9.

10.3 Package fiche

Outdoor sensor included in the package	
Controller class	II
Contribution to engery efficiency	2%

Room unit references	073951 075313 073954 074061
Controller class	VI
Contribution to engery efficiency	4%

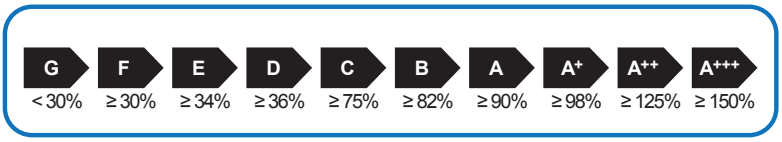
☞ application 35 °C



Models alféa ...	**Alféa Excellia 11**		**Alféa Excellia 14**		**Alféa Excellia tri 11**		**Alféa Excellia tri 14**		**Alféa Excellia tri 16**	
Reference	**522 863**		**522 864**		**522 865**		**522 866**		**522 867**	
Seasonal space heating energy efficiency of heat pump	151%		148%		154%		150%		149%	
Type of temperature control (* = Outdoor sensor ;** = Room unit)	classe II	classe VI	classe II	classe VI	classe II	classe VI	classe II	classe VI	classe II	classe VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **under average climate**	153%	155%	150%	152%	156%	158%	152%	154%	151%	153%
Energy class of package	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
Seasonal space heating energy efficiency of package **under warmer climate**	119%	121%	130%	132%	125%	127%	135%	137%	141%	143%
Seasonal space heating energy efficiency of package **under colder climate**	102%	104%	102%	104%	102%	104%	102%	104%	102%	104%

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as the efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.

☞ application 55 °C



Models alféa ...	**Alféa Excellia 11**		**Alféa Excellia 14**		**Alféa Excellia tri 11**		**Alféa Excellia tri 14**		**Alféa Excellia tri 16**	
Reference	**522 863**		**522 864**		**522 865**		**522 866**		**522 867**	
Seasonal space heating energy efficiency of heat pump	109%		113%		112%		117%		117%	
Type of temperature control (* = Outdoor sensor ;** = Room unit)	classe II	classe VI	classe II	classe VI	classe II	classe VI	classe II	classe VI	classe II	classe VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **under average climate**	111%	113%	115%	117%	114%	116%	119%	121%	119%	121%
Energy class of package	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
Seasonal space heating energy efficiency of package **under warmer climate**	119%	121%	130%	132%	125%	127%	135%	137%	141%	143%
Seasonal space heating energy efficiency of package **under colder climate**	102%	104%	102%	104%	102%	104%	102%	104%	102%	104%

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as the efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.