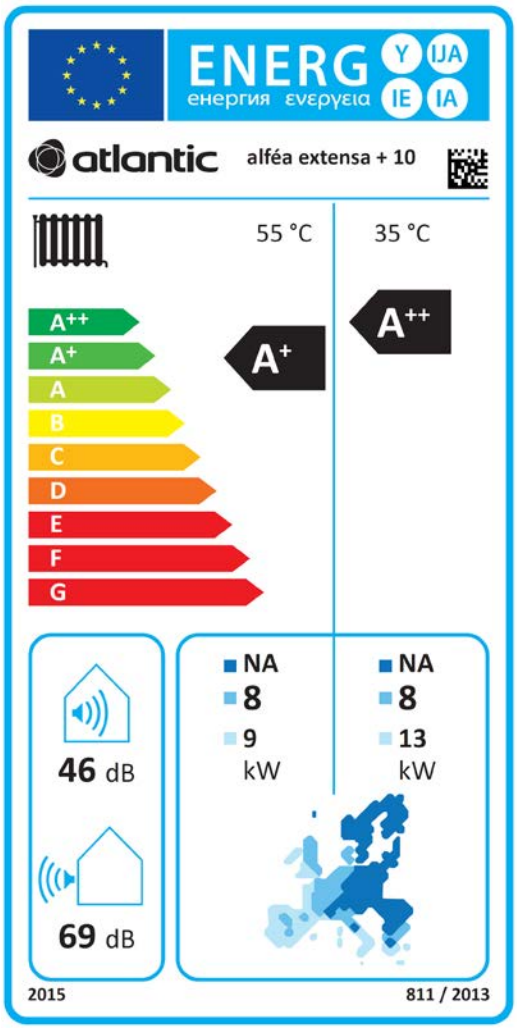
MBH
MULTIBETON HELLAS A.E.

www.atlantic-heatpumps.gr

ErP
Eco - design

atlantic
POMPES À CHALEUR ET CHAUDIÈRES



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5 ErP performance values

5.1 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.

5.2 ErP specifications Extensa (+)

Trade name / Models :	**atlantic / Alféa ...**		**extensa + 5**		**extensa + 6**		**extensa + 8**		**extensa + 10**	
Reference			**522 220**		**522 221**		**522 222**		**522 225**	
Heating ranges			35°C	55°C	35°C	55°C	35°C	55°C	35°C	55°C
Air-to-water heat pump			Yes							
Equipped with a supplementary heater			Yes (required accessory)							
Average climate - Space heating characteristics										
Energy class	-	-	A++	A+	A++	A+	A++	A+	A++	A+
Rated heat output [2]	P_{rated}	kW	4	4	5	5	7	6	8	8
Seasonal space heating energy efficiency	η_s	%	169	115	169	115	156	118	155	113
Seasonal efficiency for package with outdoor temperature sensor [1]	η_s	%	171	117	171	117	158	120	157	115
Seasonal efficiency with room unit [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 characteristics										
Rated heat output [2]	P_{rated}	kW	NA							
Seasonal space heating energy efficiency	η_s	%								
Annual energy consumption	Q_{he}	kWh								
Warmer climate - Space heating characteristics										
Rated heat output [2]	P_{rated}	kW	7	5	7	6	9	7	13	9
Seasonal space heating energy efficiency	η_s	%	217	138	221	139	218	142	203	134
Annual energy consumption	Q_{he}	kWh	1539	1778	1648	1967	2084	2422	3105	3124
Acoustic values										
Sound power level of indoor unit	L_{WA}	dBa	46							
Sound power level of outdoor unit	L_{WA}	dBa	63		63		69		69	
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature 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 = operation limit temperature	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 / Models :	atlantic / Alféa ...		extensa + 5		extensa + 6		extensa + 8		extensa + 10	
Reference			**522 220**		**522 221**		**522 222**		**522 225**	
Heating ranges			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	-	2,9	1,9	2,7	1,8	2,4	1,8	2,4	1,7
Tj = +2°C	COP_d	-	4,1	2,8	4,2	2,9	3,8	2,9	3,8	2,7
Tj = +7°C	COP_d	-	5,0	4,0	6,0	4,0	5,7	4,1	5,7	4,1
Tj = +12°C	COP_d	-	8,1	5,8	8,3	5,8	8,2	5,8	7,2	5,7
Tj = bivalent temperature	COP_d	-	2,9	1,9	2,7	1,8	2,4	1,8	2,4	1,7
Tj = operation limit temperature	COP_d	-	2,7	1,5	2,6	1,6	2,0	1,5	2,2	1,4
For Air-to-water heat pump: Operation limit temperature	TOL	°C	-10	-10	-10	-10	-10	-10	-10	-10
Heating water operating limit temperature	WTOL	°C	55	55	55	55	55	55	55	55
Supplementary heater										
Rated heat output (2)	P_{sup}	kW	0,6	1,1	0,7	1,0	0,9	0,8	1,4	1,7
Type of energy input	-	-	Electricity							
Power consumption in modes other than active mode										
Off mode	P_{OFF}	W	6	6	6	6	6	6	5	5
Thermostat-off 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
Crankcase heater mode	P_{CK}	W	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	2070		2340		3600		6200	

(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.

Trade name / Models : atlantic / Alféa ...			extensa + 13		extensa + 16	
Reference			**522 226**		**522 227**	
Heating ranges			35°C	55°C	35°C	55°C
Air-to-water heat pump			Yes			
Equipped with a supplementary heater			Yes (required accessory)			
Average climate - Space heating characteristics						
Energy class	-	-	A++	A+	A+	A+
Rated heat output (2)	P_{rated}	kW	11	9	13	11
Seasonal space heating energy efficiency	η_s	%	151	109	148	113
Seasonal efficiency for package with outdoor temperature sensor (1)	η_s	%	153	111	150	115
Seasonal efficiency with room unit (1)	η_s	%	155	113	152	117
Annual energy consumption	Q_{he}	kWh	6062	6842	6824	8041
Colder climate - Space heating characteristics						
Rated heat output (2)	P_{rated}	kW	NA			
Seasonal space heating energy efficiency	η_s	%				
Annual energy consumption	Q_{he}	kWh				
Warmer climate - Space heating characteristics						
Rated heat output (2)	P_{rated}	kW	15	11	17	14
Seasonal space heating energy efficiency	η_s	%	194	117	187	128
Annual energy consumption	Q_{he}	kWh	3967	4529	4482	5220
Acoustic values						
Sound power level of indoor unit	L_{WA}	dBa	46			
Sound power level of outdoor unit	L_{WA}	dBa	69		70	
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
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 = operation limit temperature	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
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
Tj = +2°C	COP_d	-	3,7	2,7	3,6	2,8
Tj = +7°C	COP_d	-	5,3	3,8	5,4	3,9
Tj = +12°C	COP_d	-	6,9	4,8	6,9	5,1
Tj = bivalent temperature	COP_d	-	2,6	1,9	2,5	1,9
Tj = operation limit temperature	COP_d	-	2,2	1,7	2,4	1,7
For Air-to-water heat pump: Operation limit temperature	TOL	°C	-10	-10	-10	-10
Heating water operating limit temperature	WTOL	°C	55	55	55	55

Trade name / Models : atlantic / Alféa ...			extensa + 13		extensa + 16	
Reference			**522 226**		**522 227**	
Heating ranges			35°C	55°C	35°C	55°C
Supplementary heater						
Rated heat output (2)	P_{sup}	kW	1,3	1,3	1,7	2,1
Type of energy input	-	-	Electricity			
Power consumption in modes other than active mode						
Off mode	P_{OFF}	W	8	8	8	8
Thermostat-off mode	P_{TO}	W	45	22	72	25
Standby mode	P_{SB}	W	12	12	12	12
Crankcase heater mode	P_{CK}	W	0	0	0	0
Other items						
Capacity control	-	-	Inverter			
For Air-to-water heat pump, rated air flow rate	-	m^3/h	6200		6200	

(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.

5.2.1 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

G	F	E	D	C	B	A	A+	A++	A+++
< 55%	≥ 55%	≥ 59%	≥ 61%	≥ 100%	≥ 107%	≥ 115%	≥ 123%	≥ 150%	≥ 175%

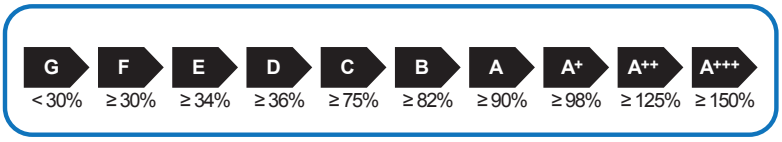
Models **Alféa ...**	**extensa + 5**		**extensa + 6**		**extensa + 8**		**extensa + 10**	
Reference	**522 220**		**522 221**		**522 222**		**522 225**	
Seasonal space heating energy efficiency of heat pump	169%		169%		156%		155%	
Type of temperature control (* = Outdoor sensor ;** = Room unit)	* class II	** class VI	* class II	** class VI	* class II	** class VI	* class II	** class VI
Bonus	2%	4%	2%	4%	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **under average climate**	171%	173%	171%	173%	158%	160%	157%	159%
Energy class of package	A++	A++	A++	A++	A++	A++	A++	A++
Seasonal space heating energy efficiency of package **under warmer climate**	219%	221%	223%	225%	220%	222%	205%	207%
Seasonal space heating energy efficiency of package **under colder climate**	NA							

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.

Models **Alféa ...**	**extensa + 13**		**extensa + 16**	
Reference	**522 226**		**522 227**	
Seasonal space heating energy efficiency of heat pump	151%		148%	
Type of temperature control (* = Outdoor sensor ;** = Room unit)	* classe II	** classe VI	* classe II	** classe VI
Bonus	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **under average climate**	153%	155%	150%	152%
Energy class of package	A++	A++	A++	A++
Seasonal space heating energy efficiency of package **under warmer climate**	196%	198%	189%	191%
Seasonal space heating energy efficiency of package **under colder climate**	NA			

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 ...**	**extensa + 5**		**extensa + 6**		**extensa + 8**		**extensa + 10**	
Reference	**522 220**		**522 221**		**522 222**		**522 225**	
Seasonal space heating energy efficiency of heat pump	115%		115%		118%		113%	
Type of temperature control (* = Outdoor sensor ;** = Room unit)	* 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%
Seasonal space heating energy efficiency of package **under average climate**	117%	119%	117%	119%	120%	122%	115%	117%
Energy class of package	A+	A+	A+	A+	A+	A+	A+	A+
Seasonal space heating energy efficiency of package **under warmer climate**	140%	142%	141%	143%	144%	146%	136%	138%
Seasonal space heating energy efficiency of package **under colder climate**	NA							

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.

Models **Alféa ...**	**extensa + 13**		**extensa + 16**	
Reference	**522 226**		**522 227**	
Seasonal space heating energy efficiency of heat pump	109%		113%	
Type of temperature control (* = Outdoor sensor ;** = Room unit)	* classe II	** classe VI	* classe II	** classe VI
Bonus	2%	4%	2%	4%
Seasonal space heating energy efficiency of package **under average climate**	111%	113%	115%	117%
Energy class of package	A+	A+	A+	A+
Seasonal space heating energy efficiency of package **under warmer climate**	119%	121%	130%	132%
Seasonal space heating energy efficiency of package **under colder climate**	NA			

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.

5.3 ErP specifications Excellia

Trade name / Models :	atlantic / Alféa ...		Excellia 11		Excellia 14		Excellia tri 11		Excellia tri 14		Excellia tri 16	
Reference			**522 888**		**522 889**		**522 890**		**522 891**		**522 892**	
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			Yes									
Equipped with a supplementary heater			Yes (Required accessory)									
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		68		69		70	
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 ...		Excellia 11		Excellia 14		Excellia tri 11		Excellia tri 14		Excellia tri 16	
Reference			**522 888**		**522 889**		**522 890**		**522 891**		**522 892**	
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	-	-	Electricity									
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.

5.3.1 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

G	F	E	D	C	B	A	A+	A++	A+++
< 55%	≥ 55%	≥ 59%	≥ 61%	≥ 100%	≥ 107%	≥ 115%	≥ 123%	≥ 150%	≥ 175%

Models: Alféa ...	**Excellia 11**		**Excellia 14**		**Excellia tri 11**		**Excellia tri 14**		**Excellia tri 16**	
Reference	**522 888**		**522 889**		**522 890**		**522 891**		**522 892**	
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**	196%	198%	189%	191%	196%	198%	193%	195%	194%	198%
Seasonal space heating energy efficiency of package **under colder climate**	123%	125%	120%	122%	126%	128%	124%	126%	121%	123%

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

G	F	E	D	C	B	A	A+	A++	A+++
< 30%	≥ 30%	≥ 34%	≥ 36%	≥ 75%	≥ 82%	≥ 90%	≥ 98%	≥ 125%	≥ 150%

Models: Alféa ...	**Excellia 11**		**Excellia 14**		**Excellia tri 11**		**Excellia tri 14**		**Excellia tri 16**	
Reference	**522 888**		**522 889**		**522 890**		**522 891**		**522 892**	
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.

This appliance is marked with this symbol. This means that electrical and electronic products shall not be mixed with general household waste.
European Community countries(*), Norway, Iceland and Liechtenstein should have a dedicated collection system for these products.
Do not try to dismantle the system yourself as this could have harmful effects on your health and on the environment.
The dismantling and treatment of refrigerant, oil and other parts must be done by a qualified installer in accordance with relevant local and national regulations.
This appliance must be treated at a specialized treatment facility for re-use, recycling and other forms of recovery and shall not be disposed of in the municipal waste stream.
Please contact the installer or local authority for more information.
* subject to the national law of each member state

Date of installation :

Contact of your heating technician or your after-sales service.

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