

ErP performance values

13.1 ErP Definition

"ErP" includes two directives that are part of the program for the reduction of warming power gases emission:

- Eco-design directive sets efficiency 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.

13.3 3-phase Models 13.3.1 ErP specifications

Trade name / Models:	atlantic / alféa...		hybrid duo fioul 11 3-phase	hybrid duo fioul 14 3-phase	hybrid duo fioul 16 3-phase
Reference			522696	522697	522698
Space heating application			55°C	55°C	55°C
Air-to-water heat pump			Yes		
Equipped with a supplementary heater			Yes		
Heat pump combination heater			Yes		
Average climate - Space heating characteristics					
Energy class (Appliance)	-	-	A +		
Energy class (Package)	-	-	A +		
Rated heat output ⁽²⁾	P_{rated}	kW	11	13	14
Seasonal space heating energy efficiency	η_s	%	116	114	113
Seasonal efficiency for package with outdoor temperature sensor ⁽¹⁾	η_s	%	118	116	115
Seasonal efficiency with room unit ⁽¹⁾	η_s	%	120	118	117
Annual energy consumption	Q_{he}	kWh	7424	8896	9734
Average climate - Domestic hot water characteristics					
Declared load profile	-	-	M		
Energy class	-	-	A		
Water heating energy efficiency	η_{wh}	%	82 %		
Annual energy consumption	AEC	kWh	616		
Daily electricity consumption	Q_{elec}	kWh	2.8		
Colder climate - Space heating characteristics					
Rated heat output ⁽²⁾	P_{rated}	kW	15	21	22
Seasonal space heating energy efficiency	η_s	%	102	100	
Annual energy consumption	Q_{he}	kWh	12573	18694	19656
Colder climate - Domestic hot water characteristics					
Declared load profile	-	-	M		
Water heating energy efficiency	η_{wh}	%	73 %		
Annual energy consumption	AEC	kWh	880		
Daily electricity consumption	Q_{elec}	kWh	4.0		
Warmer climate - Space heating characteristics					
Rated heat output ⁽²⁾	P_{rated}	kW	11	13	14
Seasonal space heating energy efficiency	η_s	%	142	127	
Annual energy consumption	Q_{he}	kWh	3704	4730	5265
Warmer climate - Domestic hot water characteristics					
Declared load profile	-	-	M		
Water heating energy efficiency	η_{wh}	%	82 %		
Annual energy consumption	AEC	kWh	616		
Daily electricity consumption	Q_{elec}	kWh	2.8		
Acoustic features					
Sound power level of indoor unit	L_{WA}	dBa	44		
Sound power level of outdoor unit (water range 55 ° C to ERP)	L_{WA}	dBa	68	69	70
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T_j					
$T_j = -7^\circ\text{C}$	Pdh	kW	9.6	11.4	12.3
$T_j = +2^\circ\text{C}$	Pdh	kW	5.9	6.9	6.9
$T_j = +7^\circ\text{C}$	Pdh	kW	6.1	5.8	5.8
$T_j = +12^\circ\text{C}$	Pdh	kW	7.3	6.8	6.8
$T_j =$ bivalent temperature	Pdh	kW	9.6	11.4	12.3
$T_j =$ operation limit temperature	Pdh	kW	8.4	9.8	9.9
Bivalent temperature	T_{biv}	°C	-7		
Degradation coefficient ⁽³⁾	Cdh	-	0.9		

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Reference			522696	522697	522698
Space heating application			55°C	55°C	55°C
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T _j					
T _j = -7°C	COP _d	-	1.86	1.96	1.86
T _j = +2°C	COP _d	-	2.94	2.84	2.84
T _j = +7°C	COP _d	-	4.56	3.90	3.80
T _j = +12°C	COP _d	-	6.18	5.13	5.13
T _j = bivalent temperature	COP _d	-	1.86	1.96	1.86
T _j = operation limit temperature	COP _d	-	1.57	1.67	1.57
Air-to-water heat pump: Operation limit temperature	TOL	°C	-10		
Heating water operating limit temperature	WTOL	°C	80		
Supplementary heater					
Rated heat output ⁽²⁾	P _{sup}	kW	2.3	2.8	3.7
Type of energy input	-	-	Fossile		
Power consumption in modes other than active mode					
Off mode	P _{OFF}	kW	0.007		
Thermostat-off mode	P _{TO}	kW	0.112		
Standby mode	P _{SB}	kW	0.024		
Crankcase heater mode	P _{CK}	kW	0		
Other items					
Capacity control	-	-	Inverter		
Nox emission	Nox	mg/kWh	271		
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 whether 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 (T_j).

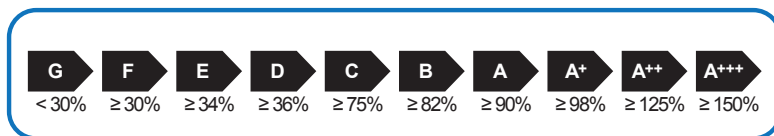
⁽³⁾ If Cdh is not determined by measurement then the default degradation coefficient is Cdh=0.9.

13.3.2 Package fiche

Models	alféa...		hybrid duo fioul 11 3-phase	hybrid duo fioul 14 3-phase	hybrid duo fioul 16 3-phase	
Reference			522696	522697	522698	
Seasonal space heating energy efficiency of heat pump			116 %	114 %	113 %	
Type of temperature control (* = Outdoor sensor ; ** = Room unit)			* Class II	** Class VI	* Class II	** Class VI
Bonus			2%	4%	2%	4%
Seasonal space heating energy efficiency of package under average climate			118%	120%	116%	118%
Package energy class			A+	A+	A+	A+
Seasonal space heating energy efficiency of package under warmer climate			144%	146%	129%	131%
Seasonal space heating energy efficiency of package under colder climate			104%	106%	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.

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



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