



1st january 2017

Ecodesign: origins & perspectives

- KYOTO (1997), COP21 (Paris 2015) and COP 22 (Marrackech 2016) define the targets to restrict the global warming to 1,5°C.
- Ecodesign directive 2009/125/CE define a framework for all energy-consuming equipments. It is mandatory for all products sold and used in European Union.
- The regulations resulting from Ecodesign define, for each product family, minimum efficiencies to achieve in 2 steps.

Rules

The regulation ensue from Ecodesign are mandatory to apply, even if the local governments don't implement them into national regulations or decrees:

- **Electric motors EC 640/2009:**
1st tier: 16th june 2011 motors IE2
2nd tier: 1st january 2015 .. motors IE3 if P>7.5 kW
3rd tier: 1st january 2017 .. moteurs IE3
- **Fans EU 327/2011:**
1st tier: 1st january 2013
2nd tier: 1st january 2015
- **Air conditioners (P<12kW) and comfort fans EU 206/2012:**
1st tier: 1st january 2013
2nd tier: 1st january 2014
- **Ventilation units EU 1253/2014:**
1st tier: 1st january 2016
2nd tier: 1st january 2018
- **Space heaters and combination heaters EU 813/2013:**
1st tier: 26th september 2015
2nd tier: 26th september 2017
- **Low temperature process chillers and condensing units EU 2015/1095 (dedicated to industrial application and/or refrigeration):**
1st tier: 1st July 2016
2nd tier: 1st january 2018
- **Air heating products, cooling products high temperature process chillers and fan coil units EU 2016/2281:**
1st tier: 1st July 2018
2nd tier: 1st january 2021

The following directive are not connected to Ecodesign, but they are also directives and European regulations:

- F gaz (2014/517/EU) Fluorinated greenhouse gases used,
- DESP (2014/68/EU) for pressure equipment,
- DEEE (2012/19/EU) for waste electrical and electronic equipment,
- Machinery directive (2006/42/EC),
- Low voltage directive (2014/35/EU),
- Electromagnetic compatibility (2014/30/EU)....



Which UNITARY range products are concerned by regulation EU 2016/2281 ?

Will be concerned from 1st January 2018:

- Split and packaged air to air units,
- Water to air units
- Multi split and VRF units

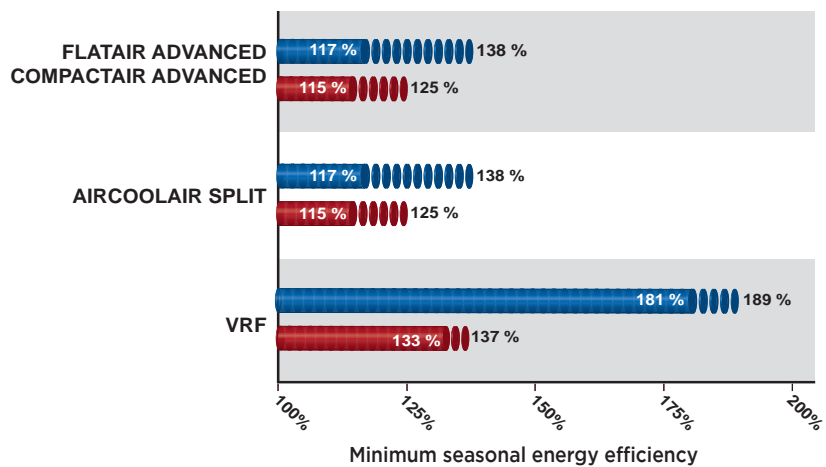
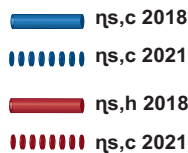
Are not concerned:

- Air handling units sold separately (without condensing unit),
- The condensing units (without air treatment unit)

It means that :

The minimum performances to achieve are summed up in the following graph:

AQUALEAN : This range is concerned, but no minimum performance to achieve.



A new document

From the 1st of January 2018, each unit will be delivered with a datasheet as defined in EU 2281/2016.

Ranges concerned

AQUALEAN



COMPACTAIR



FLATAIR ADVANCED



AIRCOOLAIR SPLIT UNITS



1st January 2017
Rev 02/2018

Nominal capacity		Seasonal efficiency	
Model(s):	Symbol	Model	Symbol
Outdoor side heat exchanger of heat pump:		Declared coefficient of performance or gas utilisation efficiency/auxiliary energy factor temperature T _j	
Indoor side heat exchanger of heat pump:		Declared heating capacity for part load at indoor temperature 20°C and outdoor temp	
Indication if the heater is equipped with a supplementary heater		T _j = -7 °C	CPdP
If applicable driver of compressor		T _j = +2 °C	CPdP
		T _j = +7 °C	CPdP
		T _j = +12 °C	CPdP
		T _{biv} = bivalent temperature °C	CPdP
		T _{OL} = operation limit °C	CPdP
		For air-to-water heat pumps: T _j = -15 °C (si TOL < -20 °C)	CPdP
		Bivalent temperature	T _{biv}
		Degradation coefficient heat pumps (**)	CDH
		Power consumption in modes other than "active mode"	
		Off mode	P _{off}
		Thermostat-off mode	P _{to}
		Crankcase heater mode	P _{ch}
		Capacity control	F _{cc}
		Sound power level indoor/outdoor measured	L _{WA}
		Emission of nitrogen oxides (if applicable)	NOx(***)
		GWP of the refrigerant	GWP
		Contact details	
		Other items	
		For air-to-air heat pumps: air flow rate, outdoor measured	
		For water/brine-to-air heat pumps: Rated brine or water flow rate, outdoor side heat exchanger	
		Supplementary heater	P _{sh}
		Back up heating capacity (*)	P _{bu}
		Type of energy input	
		Standby mode	P _{sb}

Sound power level
Outdoor/Indoor