

Swegon Home Solutions

Ecodesign Lot 6 quick guide

Residential ventilation units (RVU's)



Ecodesign Lot 6



What is ErP and Ecodesign?

ErP stands for “Energy Related Products”. ErP is supported by Ecodesign Directive (2009/125/EC) to make the use of energy and energy related products more efficient, by phasing out inefficient products and making it easier for consumers to find energy information, providing guidance to more energy-efficient products.

The Ecodesign Directive is a vital part of the European Union’s commitment to reaching the 2020 goals, aiming to reduce greenhouse gas emissions by 20% and overall energy consumption by 20%.

What is Ecodesign Directive Lot 6?

For practical reasons, the implementation of the Ecodesign Directive is split into a number of areas of related products, called “lots”, focusing on the product areas with the most substantial energy consumption and the highest potential for energy savings.

Lot 6 concerns ventilation units, a highly relevant product area, since ventilation, heating and air conditioning represent about 15% of the total energy consumption in the EU, and there is a wide variance in energy efficiency among the products on the market. Estimates show that the implementation of Lot 6 of the Ecodesign Directive will result in annual European energy savings of 1,300 PJ (PetaJoule) by year 2025. This corresponds roughly to today’s entire production of electricity in the UK.

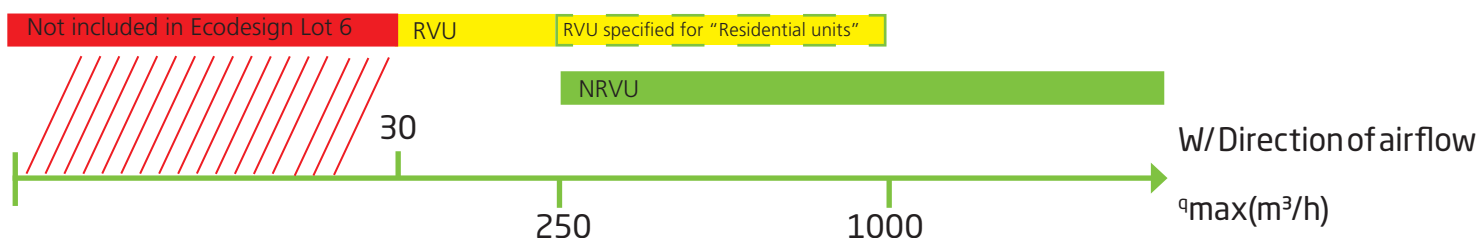
The Ecodesign Directive Lot 6 will achieve its target by setting up minimum performance requirements for ventilation products, which will be implemented in steps from 2016 to 2018.



Exceptions and limitations

Classification

Ventilation units are classified either as “Residential Ventilation Units” (RVU in the diagram below) or “Non-Residential Ventilation Units” (NRVU in the diagram below). The requirements are different for these two classes.



Exceptions:

- ▶ Fans in a casing according to 327/2011 (power input of less than 30W)
- ▶ ATEX Directive (explosive atmospheres)
- ▶ For emergency situations
- ▶ Certain extreme temperatures
- ▶ Power supply voltage > 1000 V AC or > 1500 V DC
- ▶ In toxic, corrosive, inflammable environments or in environments with abrasive materials.
- ▶ Ventilation systems that include a heat exchanger and a heat pump for heat recovery.
- ▶ Kitchen fans.

Ecodesign Lot 6 for residential ventilation units (RVU's)

1. All ventilation units will have energy label which includes following information:
 - A) Supplier's name or trade mark
 - B) Supplier's model identifier
 - C) Energy efficiency classification described with letters where A+ is most efficient class and G is least efficient.
 - D) Specific energy consumption (SEC) classes of residential ventilation units are calculated for average climate.
 - E) Sound power level in dB measured over the casing.
 - F) Declared maximum flow rate in m³/h.
2. All ventilation units, except fans with more than one range of application (for example fans used for both ventilation and combustion gas extraction) shall be equipped with a multi-speed drive or variable speed drive.
3. The heat recovery system shall have a thermal by-pass. This means that user should be able to disconnect the
- heath recovery function, either manually or automatically.
4. Specific energy consumption (SEC) means energy consumed for ventilation per m² heated floor area. Ecodesign describes maximum SEC limit for RVU's. From January 1st 2016 SEC calculated for average climate shall be no more than 0 kWh/(m².a). From January 1st 2018 SEC calculated for average climate shall be no more than - 20 kWh/(m².a).
5. From January 1st 2018 ventilation units with a filter shall be equipped with a visual filter change warning signal.

Effect on residential Swegon units

All the Swegon product series will meet the Ecodesign Lot 6 requirements for their respective implementations. More detailed information from product performance per each residential ventilation unit can be found on the web and in product calculation software.



More information
ProCASA



procasa.swegon.com

Energy labelling

Is energy labelling required for air handling units?

For residential ventilation units, labelling is mandatory.

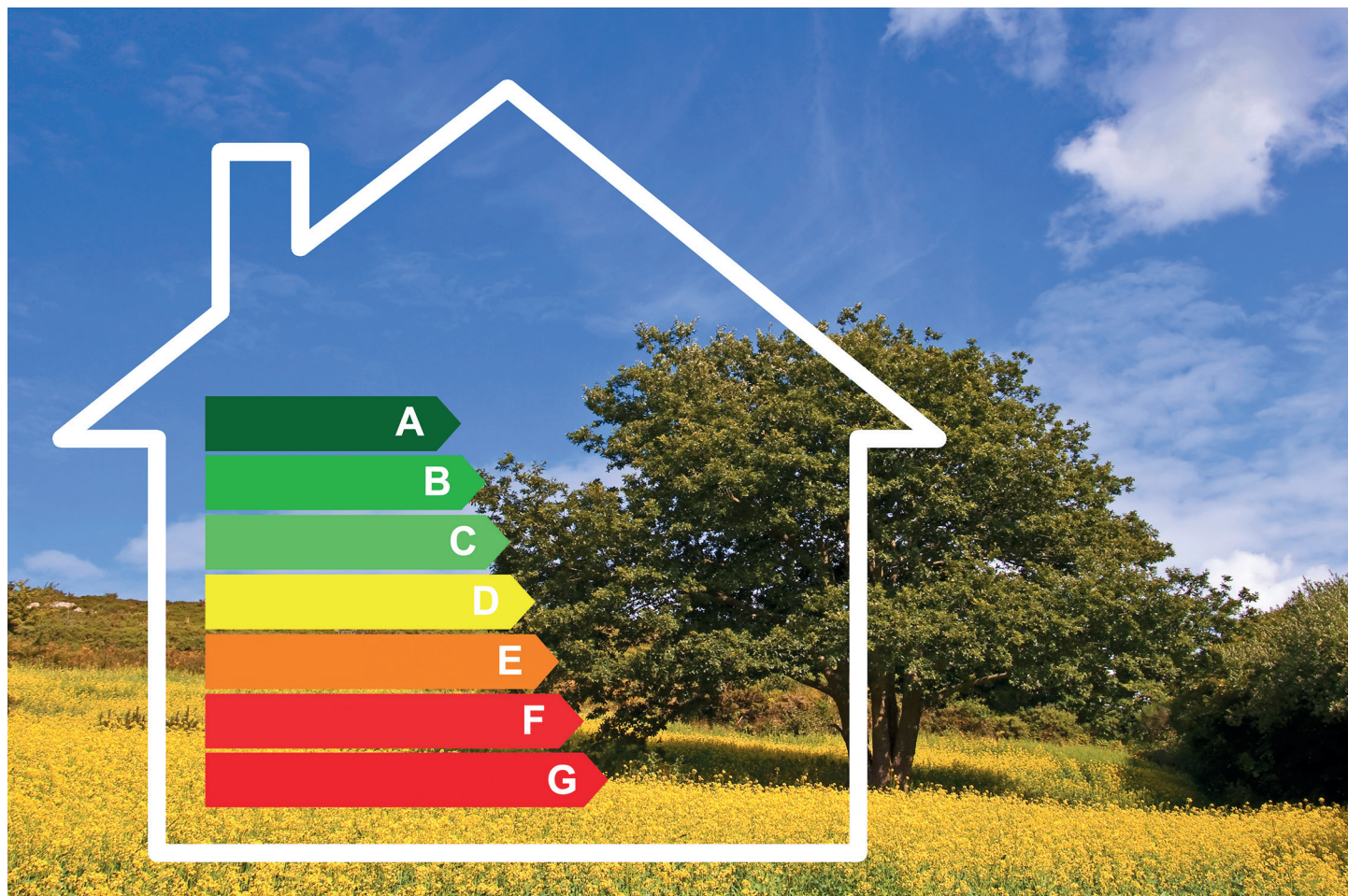
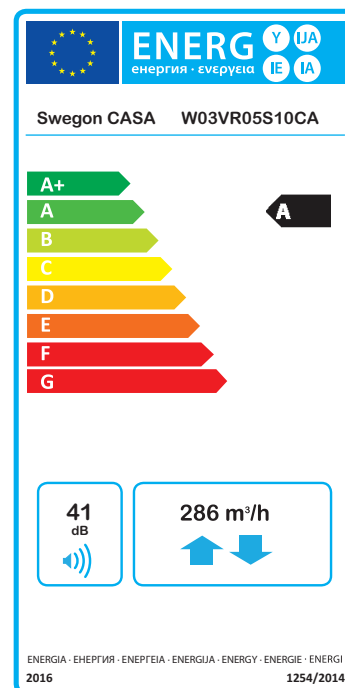
Regulation text regarding energy labelling (1254/2014) explicitly states that: "Non-residential ventilation units" (NRVUs) should be excluded from labelling as these products are chosen by planners and architects and are largely independent from consumer behavior and market patterns."

However, energy labelling may still be relevant for non-residential units as unit can be double declared for both RVU and NRVU if the unit fulfils both requirements. (Maximum flow rate < 1000 m³/h)

Verification and market surveillance

The EU Member States and their local authorities shall test RVU's and monitor that the measured values match the manufacture's declared values within defined tolerances.

If the measured values do not meet these, the model shall be considered not to comply with the requirements of Ecodesign Annex II.



This brochure is a brief summary of Ecodesign Lot 6 (1253/2014).
To read the actual Ecodesign Directive itself, please visit <http://eur-lex.europa.eu>.

