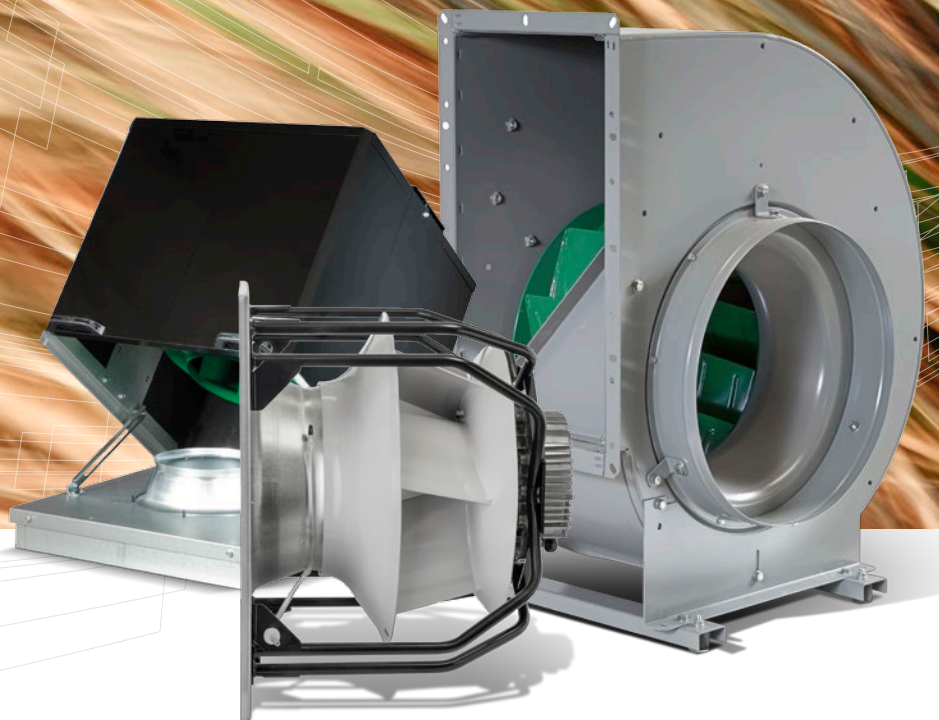


ECODESIGN *by* FLÄKT WOODS

» EU REGULATIONS RELATED TO CENTRIFUGAL FANS,
ROOF FANS AND BOX FANS





**ENVIRONMENT
ECONOMICAL
EXPERTISE**

In its simplicity the "e³" captures what makes us attractive and unique for our customers and inspires us every day at Fläkt Woods. e³ stands for Environment, Economical, and Expertise and are the cornerstones in our promise to the market to deliver environmentally friendly, energy efficient and intelligent solutions to our customers throughout the world.



ECODESIGN – DIRECTIVE (2009/125/EC) FOR ENERGY-RELATED PRODUCTS

The Ecodesign Directive (2009/125/EC) for Energy-related Products (ErP) is a vital part of the European Union's that allows the European Commission to develop regulations for practically any product used in buildings to the commitment of reaching the "2020 goals".

20% reduction of greenhouse gas emissions

20% share of renewable energy

20% better energy efficiency

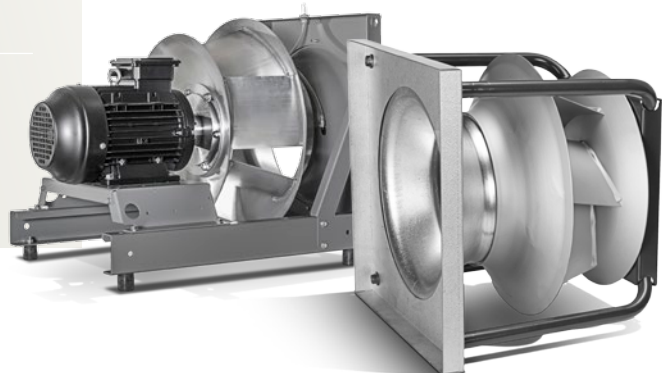
The first 13 measures which have been implemented are estimated to deliver annual power savings of 365 TWh by 2020, equivalent to more than 12% of the final EU electricity consumption in 2009. Electric motors alone are estimated to contribute more than 35% of these savings.

The different Regulations set out the minimum performance levels for different products. Fläkt Woods fully support these initiatives as they are fully in line with our strategy to develop high efficiency products with low energy consumption that meet or surpass legislative demands.

Fläkt Wood has prepared for this by developing the new CentriFlow 3D plug fan and other fans to surpass the minimum energy efficiency requirements. We are well prepared for different regulations and in many cases futureproof.

Source:

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014R1253>



ErP DIRECTIVE RELATED REGULATIONS



EU-Regulation 327/2011 for Fans

The Regulation establishes the minimum efficiency requirements for fans including the motor and drive. The minimum efficiency levels are described using FMEG-value defined separately for different fan types and using the power from mains for complete fan.

EU-Regulation 640/2009 for Motors

The Regulation establishes the minimum efficiency levels for motors. There are different efficiency levels and motor nominal powers coming step by step.

EU-Regulation 1253/2014 (and 1254/2014 for labeling Residential Ventilation units)

The Regulation establishes requirements for Ventilation Units. Roof fans and box fans are classified according to this Regulation as Unidirectional Ventilation Units, UVU. They can be classified to be used for Residential Ventilation (RVU) and Non-Residential Ventilation (NRVU). Classification does not prevent to use NRVUs also as RVU.

YEAR	FANS Regulation 327/2011	Different requirements from regulations based on ErP Directive	
		VENTILATION UNITS Regulation 1253/2014	MOTORS Regulation 640/2009
2011			> 0,75 kW Efficiency class IE2
2013	> 125 W Minimum efficiency according to Tier 1	Motorised impellers inside the UVU according to Fan Regulation	
2015	> 125 W Minimum efficiency according to Tier 2	Motorised impellers inside the UVU according to Fan Regulation	7,5–375 kW IE3 or IE2 + VSD
2016		Minimum efficiency requirements for UVU's*	
2017			0.75 – 375 kW IE3 or IE2 + VSD
2018		Increased minimum efficiency requirements for UVU's*	

*Needs to be used with VSD (Variable Speed Drive)

**FAN REGULATION
327/2011**

**VENTILATION UNIT REGULATION
1253/2014**

PLUG FAN RANGE 	FMEG > 62 STATIC	
GT-1 	FMEG > 64 STATIC	
GT-3 	FMEG > 64 STATIC	
GT-5 	FMEG > 64 STATIC	
GX-5 	Classification after installing motor and belt drive	
ROOF FAN 		6,2%*LN(P)+35%
BOX FAN 		6,2%*LN(P)+42%

FAQs

FAQs REGULATION 327/2011

1. How to identify ErP compliant fans?

All fans put on the market shall be ErP compliant and have the CE-label showing this. The efficiency grade of the fan will be clearly visible on the fan label, technical documentation and in software.

2. Does ErP Directive apply globally?

The directive and the Regulation apply to products, which are produced in EU or imported into the EU. It does not apply to products, which will be exported outside EU.

3. Are there any expectations?

Yes. Fans exempt or out of the scope of this Regulation are:

- Fans with input power less than 125 W or greater than 500 kW
- Hazardous area ATEX fans
- Fans conveying materials
- Fans for toxic corrosive environments
- Fans for ambient temperature > 100 °C
- Fans driven by non-electrical devices

4. Are all motors included to Fan Regulation?

Yes. All fans having an electrical motor installed to it are covered by Fan Regulation. There is a separate Regulation for motors (Regulation 640/2009)

5. Does existing equipment have to be retrofitted?

No. Only fans placed on the market after January 1, 2013 will be affected.

FAQs REGULATION 1253/2014

1. Which fans are included within the scope?

Roof fans and box fans as stand-alone products. Fans used in ventilation units like Air Handling Unit shall be SFP-compliant.

2. What type of speed controller shall be used?

Speed controller having minimum three fixed speed and 0-position, frequency converter or EC-motors having an integrated control.

3. Shall the speed controller be included into fan delivery?

No. It can be supplied separately. In this case the fan shall have a label "The fan shall be used with speed controller" or equal. However, manufacturer is responsible to CE-mark the product.

4. Is the Air Handling Unit, which is retrofitted with new fan within the scope?

No. Only the fan itself shall be ErP compliant.

5. Is it possible to have partial CE-marking for the ventilation unit?

No. CE-marking requires, that all Regulations and product standards shall be followed.

6. Is it possible to use roof fan classified as NRVU also in Residential Ventilation?

Yes. Classification is only based on nominal air flows and is not preventing the use of fans.

WE BRING BETTER AIR™ TO LIFE

With over a century of innovation and expertise to share with our customers, Fläkt Woods is a global leader in Air Technology products and solutions. We specialize in the design and manufacturing of a wide range of products and solutions for Air Movement, Air Treatment, Air Distribution, Air Management and Air Diffusion with focus on two major benefits – **Air Comfort** and **Fire Safety**. With market presence in 65 countries we are in a unique position to be a local supplier and an international partner in our customer's projects.

Our product brands such as SEMCO®, eQ®, eQ Prime®, JM Aerofoil®, JMv Aerofoil®, Econet®, Veloduct®, Optivent®, Optimix®, Econovent® and Cleanvent® are well-known and trusted by customers all over the world to deliver high quality and energy efficient solutions.

» To learn more about our offering and get in contact with your nearest sales representative please visit www.flaktwoods.com

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