



Content of Technical Documentation to provide to market surveillance authorities

Nordsyn
– surveillance co-operation for green products

Ventilation units for buildings

– with at least one impeller, one motor and a casing

This guide presents the content of the technical documentation that you have to provide if the market surveillance authorities ask for it. There is however other information requirements and requirements on web-information that you always need to fulfil according to the regulations.

NORDSYN SEPTEMBER 2015

Ventilation units are covered by ecodesign requirements according to Regulation (EU) No 1253/2014 and energy labelling requirements according to Regulation (EU) No 1254/2014. The requirements apply to ventilation units as described in Article 1 and 2 of the above mentioned Regulations. The documentation shall be produced before the product is placed on the market. The technical documentation shall be sufficient to enable assessment of the conformity of the product with the requirements. In this respect it is important that test reports are included in the technical documentation.

Technical documentation for ventilation unit

Demands	How to comply
Name and address of supplier	Company name and complete address
General description	Description of the model so that it is easily identified and distinguished from other models (model name and number, size etc.)
List of applied standards	Applied measurement standards (harmonised standards and/or other standards)
Identification and signature of the person empowered to bind the supplier	Name and signature of the person responsible for the product
Measured and calculated parameters Apply to both Ecodesign and Energy Labelling Rounded to the nearest integer —————>	- Specific energy consumption (SEC) in kWh/(m²xa) for each applicable climate zone and specific energy consumption class (SEC class) of the model - Typology declared, according to Article 2 of the Regulations: residential ventilation unit (RVU) or non-residential ventilation unit (NRVU), unidirectional ventilation unit (UVU)* or bidirectional ventilation unit (BVU)** - Sound power level (L_{WA})
Measurements and calculations Apply only to Energy Labelling	- Overall dimensions. - Technical parameters for measurement in accordance with Regulation Annex VIII. - Result of calculations in accordance with Regulation Annex VIII.
Product information Apply to only Ecodesign “Carry over” means the percentage of the exhaust air which is returned to the supply air for a regenerative heat exchanger according to the reference flow —————>	For residential ventilation units (RVU) - Type of drive installed or intended to be installed (multi-speed drive or variable speed drive) - Type of heat recovery system (recuperative, regenerative, none) - Thermal efficiency of heat recovery (in % or “not applicable” if the product has no heat recovery system) - Maximum flow rate in m³/h - Electric power input of the fan drive, including any motor control equipment, at maximum flow rate (W) - Reference flow rate in m³/s - Reference pressure difference in Pa - Specific power (SPI) in W/(m³/h) - Control factor and control typology in accordance with the relevant definitions and classification in Annex VIII Table 1 - Declared maximum internal and external leakage rates (%) for bidirectional ventilation units or carry over (for regenerative heat exchangers only), and external leakage rates (%) for ducted unidirectional ventilation units

* Unidirectional ventilation unit (UVU) means a ventilation unit producing an air flow in one direction only, either from indoors to outdoors (exhaust), or from outdoors to indoors (supply), where mechanically produced air flow is balanced by natural air supply or exhaust.

** Bidirectional ventilation unit (BVU) means a ventilation unit which produces an air flow between indoors and outdoors and is equipped with both exhaust and supply fans.

Technical documentation for ventilation unit

Demands	How to comply
For non-ducted units only Optional Except for models of which less than 5 units per year are produced	- Mixing rate of non-ducted bidirectional ventilation units not intended to be equipped with one duct connection on either supply or extract air side - Position and description of visual filter warning for RVUs intended for use with filters, including text pointing out the importance of regular filter changes for performance and energy efficiency of the unit - For unidirectional ventilation systems, instructions to install regulated supply/exhaust grilles in the facade for natural air supply/extraction - Internet address for disassembly instructions for the manual disassembly of permanent magnet motors, and of electronics parts (printed wiring boards/printed circuit boards and displays >10 g or > 10 cm²), batteries and larger plastic parts (>100 g) for the purpose of efficient materials recycling, except for models of which less than 5 units per year are produced - The airflow sensitivity to pressure variations at +20Pa and -20 Pa - The indoor/outdoor air tightness in m³/h For non-residential ventilation units (NRVU) - Type of drive installed or intended to be installed (multi-speed drive or variable speed drive) - Type of heat recovery system HRS (run-around, other, none) - Thermal efficiency of heat recovery (in % or “not applicable” if the product has no HRS) - Nominal NRVU flow rate in m³/s - Effective electric power input (kW) - Internal specific fan power of ventilation components (SFP) in W/(m³/s) - Face velocity in m/s at design flow rate - Nominal external pressure ($\Delta P_{s,ext}$) in Pa - Internal pressure drop of ventilation components ($\Delta P_{s,int}$) in Pa - Internal pressure drop of non-ventilation components ($\Delta P_{s,add}$) in Pa - Static efficiency of fans used in accordance with Regulation (EU) No 327/2011 - Declared maximum external leakage rate (%) of the casing of ventilation units; declared maximum internal leakage rate (%) of bidirectional ventilation units or carry over (for regenerative heat exchangers only); both measured or calculated according to the pressurisation test method or tracer gas test method at declared system pressure - Energy performance, preferably energy classification of the filters (information about the calculation of the declared energy consumption) - Description of visual filter warning for NRVUs intended for use with filters, including text pointing out the importance of regular filter changes for performance and energy efficiency of the unit - For NRVUs specified for use indoors, the casing sound power level (L_{WA}) - Internet address for disassembly instructions for the manual pre-assembly/disassembly of permanent magnet motors, and of electronics parts (printed wiring boards/printed circuit boards and displays >10 g or > 10 cm²), batteries and larger plastic parts (>100 g) for the purpose of efficient materials recycling
Model information Apply to only Ecodesign	Models where the information in the technical documentation is obtained by calculation on the basis of another ventilation unit or/and extrapolation from other ventilation units: - Details of such calculations/extrapolation - Details of tests undertaken by suppliers to verify the accuracy of the calculations. - A list of all other ventilation units where the information is obtained on the same basis - A list of equivalent ventilation unit models

This guide presents the contents of the Regulations and is addressed to manufacturers, importers and others interested. The guide is not a substitution for the Regulations, and in any case of doubt, the Regulations are applicable. This guide is not legally binding as a binding interpretation can only be made by the EU court.

COMMISSION REGULATION (EU) No 1253/2014 of 7 July 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for ventilation units

COMMISSION DELEGATED REGULATION (EU) No 1254/2014 of 11 July 2014 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of residential ventilation units

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