Svensk Ventilation
Bransch i samverkan

Svensk Ventilation: Interpretation of EU Taxonomy

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Svensk Ventilation

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About this document

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Buildings account for about 40 percent of energy consumption and 36 percent of energy-related greenhouse gas emissions within the EU, and the largest single source is heating, cooling and ventilation. Parts of the products that make heating, cooling and ventilation more energy efficient are affected by the EU taxonomy.

The aim of this document is to create a common understanding of the EU taxonomy. The initiative for this document was taken in 2022 by the Svensk Ventilation's Steering Group Sustainability. The document has been approved by Svensk Ventilation steering committee sustainability on 14 February 2023 and has been developed by a working group with participants from Svensk Ventilation, Lindab, Systemair, Swegon and Östberg. *The first proposal for interpretations of the technical screening criteria is specified in the page Interpretation TSC climate mitigation and in accordance with the proposed hierarchy for alignment below.*

The taxonomy is a new set of regulations and thus has its shortcomings. Products that have a big impact on energy efficiency are omitted today. *The technical screening criteria only concern some products in the ventilation system, see more on page Applicable TSC.* According to Svensk Ventilation, products with a certain type of technology shall be included in the taxonomy, for example ventilation air handling units with energy recovery, such as rotary, counter flow or cross flow exchangers. In addition to this, the industry needs to work on introducing classification systems for products where this is lacking today so these products can be eligible with the Taxonomy. Svensk Ventilation, together with Eurovent, will share improvement proposals with the EU Commission. Svensk Ventilation will work on proposals for technical screening criteria for ventilation products that are currently not covered by the taxonomy. *The proposals for technical screening criteria will follow the suggested hierarchy for alignment.*

The interpretations focus on products for the European market, thus there is no global perspective at this time. A company's taxonomy-aligned turnover percentage is calculated using the company's total external turnover as basis, regardless of where products are sold or manufactured. Products that are not sold or manufactured on the European market are disadvantaged today. For products like air handling units there are no similar standards outside of EU. Classifying or certifying a product according to EU requirements or standards only to fulfill the EU Taxonomy is not the right way to go. These resources, both time and money, should instead be used for the development of even more sustainable products. This problem probably exists in more areas than ventilation and is something that the EU commission should address as soon as possible.

According to Svensk Ventilation, the requirements for substantial contribution to climate change adaptation for manufacturing of energy efficiency equipment for buildings, article 3.5 in the taxonomy, are not possible to apply on single ventilation products. The responsibility of climate change adaptation is related to the design of the building and its ventilation system. New and existing buildings need to be assessed and adapted for resilience to current risks and future climate changes. Besides impacting the structural features of a building, climate change can have bad influence on the indoor climate. It is therefore up to the engineer to design a ventilation system prepared to meet these changes.

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Instructions

Links

https://eu-taxonomy.info/
https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-2800-annex-1_en.pdf

Abbreviations

TSC = Technical Screening Criteria
PF = product family

Rules for interpretation of TSC

An interpretation is normally approved by external revision if there is evidence like third party verification as well as description of what the interpretation is based on. All interpretations are based on that the economic activity is aligned with TSC (Technical Screening Criteria), and minimum safeguards and DNSH (do not do significant harm). If the interpretation is not linked to a paragraph, chapter, or piece of text in the EU Taxonomy and the chain of evidence cannot be described, the taxonomy is not fulfilled.

Hierarchy for alignment

1. EU-directive classifications
2. Other EU- classifications
3. ISO/EN standards with classifications
4. Eurovent Certita certification classifications, or similar pan-European third-party certification with classifications
5. Others like national classifications, test institutions etc.

Description

"Two highest populated classes" refers to the at the given time two best classes in each category. Cut-off each year is first of September i.e., if the "two highest populated classes" changes after 1/9 it will take effect the next coming year.

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References to applicable standards, regulations, and directives[1]

Standards/regulations/directives	
EU 626/2011: Energy labelling of air conditioners	https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32011R0626
EN 1751: Ventilation for buildings - Air terminal devices - Aerodynamic testing of dampers and valves	https://www.sis.se/en/produkter/construction-materials-and-building/installations-in-buildings/ventilation-and-airconditioning-systems/ssen1751/
EN 12337: Ventilation for buildings - Ductwork - Strength and leakage of circular sheet metal ducts	https://www.sis.se/en/produkter/package-of-building-standards/building-standards-execution-and-control/heating-water-and-sanitation-installations/ss-en-12237/
EN 1507: Ventilation for buildings - Sheet metal air ducts with rectangular section - Requirements for strength and leakage	https://www.sis.se/en/produkter/construction-materials-and-building/installations-in-buildings/ventilation-and-airconditioning-systems/ssen15072006/
EN 17192: Ventilation for buildings - Ductwork - Non-metallic ductwork - Requirements and test methods	https://www.sis.se/produkter/byggnadsmaterial-och-byggnader/bygginstallationer/ventilation-och-luftkonditionering/ss-en-171922019/
EU 2017/1369: Energy labelling	https://eur-lex.europa.eu/legal-content/SV/TXT/?uri=CELEX%3A32017R1369
EU 1254/2017: Energy labelling of residential ventilation units	https://eur-lex.europa.eu/legal-content/SV/TXT/?uri=CELEX%3A32014R1254
EU 327/11: Eco-design requirements for fans driven by motors with an electric input power between 125 W and 500 kW	https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32011R0327
Eurovent Certification, Energy efficiency label	https://www.eurovent-certification.com/en/third-party-certification/energy-efficiency-labels

[1]Including but not limited to those.

Applicable TSC

Technical Screening Criteria (TSC)	Description
3.5 i	cooling and ventilation systems rated in the highest two populated classes of energy efficiency in accordance with Regulation (EU) 2017/1369 and delegated acts adopted under that Regulation
3.5 k	heat pumps compliant with the technical screening criteria set out in Section 4.16 of this Annex
3.5 o	products for heat metering and thermostatic controls for individual homes connected to district heating systems, for individual flats connected to central heating systems serving a whole building, and for central heating systems
3.5 m	energy-efficient building automation and control systems for residential and non-residential buildings
3.5 n	zoned thermostats and devices for the smart monitoring of the main electricity loads or heat loads for buildings, and sensoring equipment
3.5 q	products for smart monitoring and regulating of heating system, and sensoring equipment

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Interpretation TSC climate mitigation

Product family (PF)	Part of HVAC-system	Eligible	Technical Screening Criteria (TSC)	Aligned	Comment
Accessories	Yes	Yes	3.5 i	If considered part of an aligned ventilation system and/or product.	
Air conditioners	Yes	Yes	3.5 i	The two highest populated classes for energy class according to EU 626/2011.	
Air diffusion (incl. diffusers, grilles, valves and similar)	Yes	No			Not applicable, no relevant rating available. Svensk Ventilation will share input to the EU Taxonomy Expert Group to evaluate criteria also covering air diffusion products.
Air duct systems (incl. ducts, duct components, dampers, silencers and similar)	Yes	Yes	3.5 i	One of the two highest populated classes for airtightness class; according to applicable EN-standard: 1751, 12237, 1507, 17192.	
Air filters	Yes	Yes	3.5 i	Third party certification, Eurovent or similar for one of the two highest populated classes for energy class.	
Air handling units	Yes	Yes	3.5 i	NRVU: Third party certification for one of the two highest populated classes for energy class. RVU: Two highest populated classes for energy class according to (EU) 2017/1369, (EU) 1254/2014).	NRVU stand for a large part of the energy consumption in the HVAC-system. Svensk Ventilation will share input to the EU Taxonomy Expert Group to evaluate criteria connected to technology like energy recovery, counter flow or cross flow exchangers.
Air Purifiers	No				Stand-alone product, not part of the HVAC system.

Chilled beams	Yes	No			Not applicable, no relevant rating available. Svensk Ventilation will share input to the EU Taxonomy Expert Group to evaluate criteria also covering chilled beams.
Chillers	Yes	Yes	3.5 k	See taxonomy 3.5 k.	
Coils	Yes	No			Not applicable, no relevant rating available.
Commercial refrigerant	No				Not applicable, no relevant rating available.
Cooling towers	Yes	No			Not applicable, no relevant rating available.
Drift eliminators	Yes	No			Not applicable, no relevant rating available.
Cooker hoods	Yes	Yes	3.5 i	Two highest populated classes for energy class according to (EU) 2017/1369, (EU) 65/2014).	
Fan coils	Yes	Yes	3.5 i	Third party certification, Eurovent or similar for one of the two highest populated classes for energy class and performance class.	
Fans	Yes	Yes	3.5 i	RVU: Two highest populated classes for energy class according to (EU) 2017/1369, (EU) 1254/2014). Others: (EU) 327/11.	NRVU not applicable, no relevant rating available However, these fans have a major impact on the energy efficiency of a HVAC- system. Svensk Ventilation will share input to the EU Taxonomy Expert Group to evaluate criteria also covering NRVU fans.
Heat pumps	Yes	Yes	3.5 k	See taxonomy 3.5 k.	
Measuring and control of ventilations systems	Yes	Yes	3.5 m, n, q	Steering products or sensors for monitoring with connection to smart products to control the ventilation system to decrease energy consumption. See taxonomy 3.5 m, n, q for more details.	
Mobile heater	No				Not applicable, no relevant rating available

Plate heat exchangers	Yes	No			Not applicable, no relevant rating available. Svensk Ventilation will share input to the EU Taxonomy Expert Group to evaluate criteria connected to technology like energy recovery, counter flow or cross flow exchangers.
Radiators	No				Not applicable, no relevant rating available
Roof hoods	Yes	No			Not applicable, no relevant rating available. Svensk Ventilation will share input to the EU Taxonomy Expert Group to evaluate criteria also covering roof hoods.
Rooftops	Yes	Yes	3.5 i	Third party certification for one of the two highest populated classes in SEER and SCOP for energy class. Note Both SEER and SCOP need to be in the two highest populated classes.	
Rotary heat exchangers	Yes	No			Not applicable, no relevant rating available. Svensk Ventilation will share input to the EU Taxonomy Expert Group to evaluate criteria connected to technology like energy recovery, counter flow or cross flow exchangers.
Solar systems	No				
Stoves & Barbecues	No				
Thermostatic valves	Yes	Yes	3.5 o	See taxonomy 3.5 o.	
Variable refrigerant flow systems	Yes	Yes	3.5 k	See taxonomy 3.5 k.	

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Interpretation TSC climate adaptation

Product family (PF)	Part of HVAC-system	
Accessories	Yes	Climate change adaptation The requirements for substantial contribution to climate change adaptation for manufacturing of energy efficiency equipment for buildings, 3.5, are not possible to apply on single ventilation products. The larger part of the products is mounted indoors and are therefore not directly affected by extreme weather like wind and rain. Higher temperatures will increase the need for cool air. For products mounted outdoors the right material must be chosen as well as the installation must be adapted to the specific conditions. The responsibility of climate change adaptation is related to the design of the building and its ventilation system. New and existing buildings need to be assessed and adapted for resilience to current risks and future climate changes. Besides impacting the structural features of a building, climate change can have bad influence on the indoor climate. It is therefore up to the consultant to design a ventilation system prepared to meet these changes.
Air conditioners	Yes	
Air diffusion (incl. diffusers, grilles, valves and similar)	Yes	
Air duct systems (incl. ducts, duct components, dampers, silencers and similar)	Yes	
Air filters	Yes	
Air handling units	Yes	
Air Purifiers	No	
Chilled beams	Yes	
Chillers	Yes	
Coils	Yes	
Commercial refrigerant	No	
Cooling towers	Yes	
Drift eliminators	Yes	
Fan coils	Yes	
Fans	Yes	
Heat pumps	Yes	
Measuring and control of ventilations systems	Yes	
Mobile heater	No	
Plate heat exchangers	Yes	
Radiators	No	
Roof hoods	Yes	
Rooftops	Yes	
Rotary heat exchangers	Yes	
Solar systems	No	

Stoves & Barbecues	No	
Thermostatic valves	Yes	
Variable refrigerant flow systems	Yes	