Commission Regulation (EU) 2016/2281 of 30 November 2016 implementing Directive 2009/125/EC of the European Parliament and of the Council establishing a framework for the setting of ecodesign requirements for energy-related products, with regard to ecodesign requirements for air heating products, cooling products, high temperature process chillers and fan coil units (Text with EEA relevance)

COMMISSION REGULATION (EU) 2016/2281

of 30 November 2016

implementing Directive 2009/125/EC of the European Parliament and of the Council establishing a framework for the setting of ecodesign requirements for energy-related products, with regard to ecodesign requirements for air heating products, cooling products, high temperature process chillers and fan coil units

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products[(1)] and in particular Article 15(1) thereof,

After consulting the Ecodesign Consultation Forum,

Whereas:

(1) Pursuant to Directive 2009/125/EC, the Commission should set ecodesign requirements for energy-related products for which there are significant volumes of sales and trade, which have a significant effect on the environment and which offer significant potential for reducing this effect by improving their design, without creating excessive costs.

(2) Pursuant to Article 16(2)(a) of Directive 2009/125/EC, the Commission should, where appropriate, introduce implementing measures for products which offer significant potential for reducing greenhouse gas emissions in a cost-effective way, such as air heating products and cooling products. These implementing measures should be introduced in accordance with the procedure referred to in Article 19(3) of Directive 2009/125/EC and the criteria set out in Article 15(2) of the same Directive. The Commission should consult the Ecodesign Consultation Forum on the measures to be introduced.

(3) The Commission has carried out different preparatory studies covering the technical, environmental and economic characteristics of air heating products, cooling products and high temperature process chillers typically used in the EU. The studies were designed in conjunction with interested parties from EU and non-EU countries, and the results have been made publicly available.

Changes to legislation: *There are outstanding changes not yet made to Commission Regulation (EU) 2016/2281. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes*

(4) The characteristics of air heating products, cooling products and high temperature process chillers that have been identified as significant for the purposes of this Regulation are energy consumption and emissions of nitrogen oxides during use. Direct emissions from refrigerants and noise emissions were also identified as relevant.

(5) The preparatory studies show that it is not necessary to introduce requirements relating to the other ecodesign parameters referred to in Part 1 of Annex I to Directive 2009/125/EC in the case of air heating products, cooling products and high temperature process chillers.

(6) This Regulation should cover air heating products, cooling products and high temperature process chillers designed to use gaseous fuels, liquid fuels or electricity and fan coil units.

(7) As refrigerants are addressed under Regulation (EU) No 517/2014 of the European Parliament and of the Council[(2)] no specific requirements on refrigerants are therefore set in this Regulation.

(8) Noise emissions for air heating products, cooling products, high temperature process chillers and fan coil units are also relevant. Nevertheless the environment where air heating products, cooling products and high temperature process chillers are installed has an impact on the maximum noise emissions that can be accepted. In addition, secondary measures can be taken in order to attenuate the impact of noise emissions. In consequence no minimum requirements are set regarding maximum noise emissions. Information requirements regarding sound power level are established

(9) The combined annual energy consumption of air heating products, cooling products and high temperature process chillers in the EU was estimated at 2 477 PJ (59 Mtoe) per year for 2010, corresponding to 107 Mt of carbon dioxide emissions. Unless specific measures are taken, the annual energy consumption of air heating products, cooling products and high temperature process chillers is expected to reach 2 534 PJ (60 Mtoe) per year by 2030.

(10) The energy consumption of air heating products, cooling products and high temperature process chillers could be reduced, without increasing the combined cost of purchasing and operating these products, using existing, non-proprietary technologies.

(11) Total annual emissions of nitrogen oxides in the EU, primarily emitted by gas-fired warm air heaters, were estimated at 36 Mt SO_x equivalent per year for 2010 (expressed in terms of their contribution to acidification). These emissions are expected to fall to 22 Mt SO_x equivalent per year by 2030.

(12) Emissions from air heating products, cooling products and high temperature process chillers could be further reduced, without increasing the combined cost of purchasing and operating these products, using existing, non-proprietary technologies.

(13) The ecodesign requirements set out in this Regulation are expected to deliver annual energy savings of approximately 203 PJ (5 Mtoe), corresponding to 9 Mt of carbon dioxide emissions, by 2030.

***Changes to legislation:** There are outstanding changes not yet made to Commission Regulation (EU) 2016/2281. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes*

(14) The ecodesign requirements set out in this Regulation are expected to reduce annual nitrogen oxides emissions by 2,6 Mt SO_x equivalent by 2030.

(15) Ecodesign requirements should harmonise the requirements relating to energy efficiency and nitrogen oxides emissions that apply to air heating products and cooling products throughout the EU. This will help to improve both the functioning of the single market and the environmental performance of the products concerned.

(16) The ecodesign requirements set out in this Regulation should not affect the functionality or affordability of air heating products, cooling products and high temperature process chillers for the end-user and should not have a detrimental effect on health, safety or the environment.

(17) Manufacturers should be given sufficient time to redesign their products so that they comply with this Regulation. This should be considered when setting the date from which the requirements are to apply. The timing should take account of the cost implications for manufacturers, in particular for small and medium-sized enterprises, while also ensuring that the objectives of this Regulation can be met by the target dates.

(18) Measurements of the relevant product parameters should be performed through reliable, accurate and reproducible measurement methods, which take into account the recognised state-of-the-art measurement methods including, where available, harmonised standards adopted by the European standardisation organisations, as listed in Annex I to Regulation (EU) No 1025/2012 of the European Parliament and of the Council[(3)].

(19) In accordance with Article 8(2) of Directive 2009/125/EC, this Regulation specifies which conformity assessment procedures apply.

(20) To facilitate compliance checks, manufacturers should provide information in the technical documentation referred to in Annexes IV and V to Directive 2009/125/EC insofar as that information relates to the requirements laid down in this Regulation.

(21) To further limit the environmental effects of air heating products, cooling products, high temperature process chillers and fan coil units, manufacturers should provide information on disassembly, recycling and/or disposal.

(22) In addition to the legally binding requirements laid down in this Regulation, indicative benchmarks for best available technologies should be identified to ensure that information on the environmental performance of air heating products, cooling products and high temperature process chillers is widely available and easily accessible.

(23) The measures provided for in this Regulation are in accordance with the opinion of the Committee established by Article 19(1) of Directive 2009/125/EC,

HAS ADOPTED THIS REGULATION:

Changes to legislation: *There are outstanding changes not yet made to Commission Regulation (EU) 2016/2281. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes*

Article 1

Subject matter and scope

1 This Regulation establishes ecodesign requirements for the placing on the market and/or putting into service of:

a air heating products with a rated heating capacity not exceeding 1 MW;

b cooling products and high temperature process chillers with a rated cooling capacity not exceeding 2 MW;

c fan coil units.

2 This Regulation shall not apply to products meeting at least one of the following criteria:

a products covered by Commission Regulation (EU) 2015/1188 with regard to ecodesign requirements for local space heaters[4];

b products covered by Commission Regulation (EU) No 206/2012 with regard to ecodesign requirements for air conditioners and comfort fans[5];

c products covered by Commission Regulation (EU) No 813/2013 with regard to ecodesign requirements for space heaters and combination heaters[6];

d products covered by Commission Regulation (EU) 2015/1095 with regard to ecodesign requirements for professional refrigerated storage cabinets, blast cabinets, condensing units and process chillers[7];

e comfort chillers with leaving chilled water temperatures of less than + 2 °C and high temperature process chillers with leaving chilled water temperatures of less than + 2 °C or more than + 12 °C;

f products designed for using predominantly biomass fuels;

g products using solid fuels;

h products that supply heat or cold in combination with electric power (‘cogeneration’) by means of a fuel combustion or conversion process;

i products included in installations covered by Directive 2010/75/EU of the European Parliament and of the Council[8] on industrial emissions;

j high temperature process chillers exclusively using evaporative condensing;

k custom-made products assembled on site, made on a one-off basis;

l high temperature process chillers in which refrigeration is effected by an absorption process that uses heat as the energy source; and

m air heating and/or cooling products of which the primary function is the purpose of producing or storing perishable materials at specified temperatures by commercial, institutional or industrial facilities and of which space heating and/or space cooling is a secondary function and for which the energy efficiency of the space heating and/or space cooling function is dependent on that of the primary function.

Article 2

Definitions

For the purposes of this Regulation the following definitions shall apply in addition to the definitions set out in Directive 2009/125/EC:

(1) ‘air heating product’ means a device that:

***Changes to legislation:** There are outstanding changes not yet made to Commission Regulation (EU) 2016/2281. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes*

(a) incorporates or provides heat to an air-based heating system;

(b) is equipped with one or more heat generators; and

(c) may include an air-based heating system for supplying heated air directly into the heated space by means of an air-moving device.

A heat generator designed for an air heating product and an air heating product housing designed to be equipped with such a heat generator shall, together, be considered as an air heating product;

(2) 'air-based heating system' means the components and/or equipment necessary for the supply of heated air, by means of an air-moving device, either through ducting or directly into the heated space, where the purpose of the system is to attain and maintain the desired indoor temperature of an enclosed space, such as a building or parts thereof, for the thermal comfort of human beings;

(3) 'heat generator' means the part of an air heating product that generates useful heat using one or more of the following processes:

(a) the combustion of liquid or gaseous fuels;

(b) the Joule effect, taking place in the heating elements of an electric resistance heating system;

(c) by capturing heat from ambient air, ventilation exhaust air, water or ground heat source(s) and transferring this heat to the air-based heating system using a vapour compression cycle or a sorption cycle;

(4) 'cooling product' means a device that:

(a) incorporates, or provides chilled air or water to, an air-based cooling system or water-based cooling system; and

(b) is equipped with one or more cold generator(s).

A cold generator designed for use in a cooling product and a cooling product housing designed to be equipped with such a cold generator shall, together, be considered as a cooling product;

(5) 'air-based cooling system' means the components or equipment necessary for the supply of cooled air, by means of an air-moving device, either through ducting or directly into the cooled space, in order to attain and maintain the desired indoor temperature of an enclosed space, such as a building or parts thereof, for the thermal comfort of human beings;

(6) 'water-based cooling system' means the components or equipment necessary for the distribution of chilled water and the transfer of heat from indoor spaces to chilled water, where the purpose of the system is to attain and maintain the desired indoor temperature of an enclosed space, such as a building or parts thereof, for the thermal comfort of human beings;

(7) 'cold generator' means the part of a cooling product that generates a temperature difference allowing heat to be extracted from the heat source, the indoor space to be cooled, and transferred to a heat sink, such as ambient air, water or ground, using a vapour compression cycle or a sorption cycle;