EUROPEAN
COMMISSION

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ANNEXES 1 to 2

ANNEXES

to the

COMMISSION IMPLEMENTING REGULATION

on a standardisation request to the European standardisation organisations as regards ecodesign requirements for air-to-air air conditioners, air-to-air air heat pumps and comfort fans in support of Commission Regulation (EU) 20XX/XXXX

Annex I: Requirements for the harmonised standards

1. GENERAL REQUIREMENTS

The harmonised standards must be based on reliable, accurate and reproducible procedures and methods that take into account the generally acknowledged state of the art.

The harmonised standards must be based on existing standards for air-to-air air conditioners, air-to-air heat pumps and comfort fans that lay down procedures and methods for measuring and calculating:

- the seasonal space heating energy efficiency, the seasonal space cooling energy efficiency and the service value, where applicable;
- the sound power, where applicable;

The harmonised standards must take account of standards developed pursuant to Regulation (EU) No 305/2011 of the European Parliament and of the Council[1], where applicable.

The harmonised standards must include product design definitions and the main characteristics of the products. They must also include a description of the parameters to be measured or calculated so that reliable, accurate and reproducible results can be obtained.

Round robin or other testing methods may also be used to help determine the accuracy of certain methods used.

Where appropriate, the standards should set out test procedures that aim to minimise the risk that a model's performance can be set or automatically altered in test conditions with the objective of reaching a more favourable level. In addition, the standard shall clarify that the settings of the unit during testing shall be within the normal operating range of the unit.

2. REQUIREMENTS ON THE COVERAGE OF EFFICIENCY OF AIR-TO-AIR AIR CONDITIONERS, AIR-TO-AIR HEAT PUMPS AND COMFORT FANS

As provided for in Regulation (EU) XXXX/XXX, the harmonised standards must cover the following parameters for air-to-air air conditioners, air-to-air heat pumps and comfort fans:

1. For air-to-air air conditioners, except single duct air conditioners and portable double duct air conditioners:
   - the rated cooling capacity;
   - the seasonal space cooling energy efficiency;
   - the declared cooling capacity for part load at given outdoor temperatures;
   - the cycling degradation coefficient;
   - the declared energy efficiency ratio for part load at given outdoor temperatures;
   - the power consumption in off mode, thermostat off mode, crankcase heater mode and standby mode;

[1] Regulation (EU) 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products (OJ L 88, 4.4.2011, p. 5).

– the average temperature and humidity at the indoor(s) unit(s) outlet(s) for rated conditions and for part load at given outdoor temperatures;

– the sound power level;

– a method to measure the in-situ space cooling energy efficiency;

– a method for the establishment of declared capacities, SEER/EER values and service values without the need of information from the manufacturer on the setting of the unit.

2. For air-to-air heat pumps, except single duct heat pumps and portable double duct heat pumps

– the rated heating capacity;

– the seasonal space heating energy efficiency;

– the declared heating capacity for part load conditions at given outdoor temperatures;

– the back-up heating capacity of the supplementary heater at given outdoor temperatures;

– the bivalent temperature;

– the operation limit temperature;

– the cycling degradation coefficient;

– the declared coefficient of performance for part load at given outdoor temperatures;

– the power consumption in off mode; thermostat off mode, crankcase heater mode and standby mode;

– the average temperature at the indoor(s) unit(s) outlet(s) for rated conditions and for part load at given outdoor temperature;

– the sound power level;

– a method to measure the in-situ space heating energy efficiency;

– a method for the establishment of declared capacities, SCOP/COP values and service values without the need of information from the manufacturer on the setting of the unit.

3. For single duct and portable double duct air-to-air air conditioners

– the rated cooling capacity;

– the infiltration air flow for single duct air-to-air air conditioners;

– the equilibrium temperature;

– the seasonal space cooling energy efficiency;

– the declared cooling capacity for part load;

– the cycling degradation coefficient;

– the declared energy efficiency ratio for part load;

– the power consumption in off mode and standby mode;

– the average temperature and humidity at evaporator outlet for rated and part load conditions;

– the sound power level;

– a method to measure the in-situ space cooling energy efficiency.

4. For single duct and portable double duct air-to-air heat pumps

– the rated heating capacity;

– the infiltration air flow for single duct air-to-air heat pumps;

– the equilibrium temperature;

– the seasonal space heating energy efficiency;

– the power consumption in off mode and standby mode;

– the average temperature at condenser outlet for rated and part load conditions;

– the sound power level;

– a method to measure the in-situ space heating energy efficiency.

5. For comfort fans:

– for all comfort fans except for tower fans, the fan diameter;

– the electric power input for the air movement function, excluding additional functionalities such as lighting;

– the air flow rate;

– the service value;

– the sound power.

Annex II: Harmonised standards and deadlines for adoption

European Standardisation Organisations should seek to prioritise their work in accordance with the deadlines contained in the Regulation. However, final deadline for adoption are given in Table 1.

Table 1 – Requested harmonised standards

Reference information	Deadline for adoption
1. Air conditioners and heat pumps driven by an electric motor. Adoption of standards EN 14825:2018, EN 14511-1:2018, EN 14511-2:2018, EN 14511-3:2018, EN 14511-4:2018, EN 12102-1:2017, EN 15218:2013; EN12102-1:2017 or any other relevant standard.	**1/1/2021**
Adoption of a standard including infiltration impact and part load conditions for portable air conditioners.	**1/1/2022**
Adoption of a standard including the method to determine the declared capacities, SEER/EER, SCOP/COP values and service values without the need of information from the manufacturer on the setting of the unit.	**1/1/2025**
2. Comfort fans Adoption of standard IEC 60879: 1986 (corr. 1992) or any other relevant standard.	**1/1/2022**