

Disclaimer:

This is a working document supporting the revision of COMMISSION REGULATION (EU) 2019/1782 of 1 October 2019 laying down ecodesign requirements for external power supplies. It sets out an initial draft of the revised legal text to support the stakeholders' consultation process, in particular the Consultation Forum meeting of 8 December 2022.

Please note that while this draft document has been prepared by DG ENER staff and its consultants, it is by no means an official document endorsed by the European Commission.

Working document

supporting the Revision of

COMMISSION REGULATION (EU) 2019/1782

of 1 October 2019

laying down ecodesign requirements for external power supplies pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulation (EC) No 278/2009

Draft Main Act

COMMISSION REGULATION (EU) yyyy/xxxx of dd/mm/yyyy

laying down ecodesign requirements for external power supplies and wireless chargers pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulation (EC) No 278/2009

THE EUROPEAN COMMISSION,

Having regard to Article 114 of 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 products¹, and in particular Article 15(1) thereof,

Whereas:

[...]

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter and scope

1. This Regulation establishes ecodesign requirements for the placing on the market or putting into service of external power supplies and wireless chargers.
2. This Regulation shall not apply to:
 - (a) voltage converters;
 - (b) uninterruptible power supplies;
 - (c) battery chargers without power supply function;
 - (d) -;
 - (e) external power supplies for medical devices;
 - (f) active power over Ethernet injectors;
 - (g) docking stations for autonomous appliances;
 - (h) external power supplies placed on the market before 1 April 2025 solely as a service part or spare part for replacing an identical external power supply placed on the market before 1 April 2020, under the condition that the service part or spare part, or its packaging, clearly indicate 'External power supply

¹ OJ L 285, 31.10.2009, p. 10.

to be used exclusively as spare part for' and the primary load product(s) it is intended to be used with.

Article 2
Definitions

For the purpose of this Regulation the following definitions shall apply:

- (1) 'external power supply' means a device which meets all of the following criteria:
 - (a) it is designed to convert alternating current (AC) power input from the mains power source input into one or more lower voltage direct current (DC) or AC outputs;
 - (b) it is used with one or more separate devices that constitute the primary load;
 - (c) it is contained in a physical enclosure separate from the device or devices that constitute the primary load;
 - (d) it is connected to the device or devices that constitute the primary load with removable or hard-wired male/female electrical connections, cables, cords or other wirings;
- (e) it has nameplate output power not exceeding 250 watts; and (f) it is used or intended to be used with electrical and electronic household and office equipment included in Annex I;
- (2) 'low voltage external power supply' means an external power supply with a nameplate output voltage of less than 6 volts and a nameplate output current greater than or equal to 550 milliamperes;
- (3) 'multiple voltage output external power supply' means an external power supply able to convert AC power input from the mains power source into more than one simultaneous output at lower DC or AC voltage;
- (4) 'voltage converter' means a device converting the 230 volts mains power source input to 110 volts power output with characteristics similar to mains power source input characteristics;
- (5) 'uninterruptible power supply' means a device that automatically provides backup power when the electrical power from the mains power source drops to an unacceptable voltage level;
- (6) 'battery charger' means a device that connects directly at its output interface by means of contact of metallic conductors to one or more removable batteries or battery-packs for the purpose of charging;
- (7) 'lighting converter' means an external power supply used with extra low voltage light sources;

- (8) 'active power over Ethernet injector' means a device that converts the mains power source input to a lower DC voltage output, has one or more Ethernet input and/or one or more Ethernet output ports, delivers power to one or several devices connected to the Ethernet output port(s), and provides the rated voltage at the output ports(s) only when compatible devices are detected following a standardised process;
- (9) 'docking station for autonomous appliances' means a device in which a battery-operated appliance that executes tasks requiring the appliance to move without any user intervention is placed for charging, and that can guide the independent movements of the appliance;
- (10) 'mains' means the electricity supply from the grid of 230 (± 10 %) volts of alternating current at 50 Hz;
- (11) 'information technology equipment' means any equipment which has a primary function of either entry, storage, display, retrieval, transmission, processing, switching, or control, of data or of telecommunication messages or a combination of these functions and may be equipped with one or more terminal ports typically operated for information transfer;
- (12) 'domestic environment' means an environment where the use of broadcast radio and television receivers may be expected within a distance of 10 m of the equipment concerned;
- (13) 'nameplate output power' (P_O) means the maximum output power as specified by the manufacturer;
- (14) 'no-load condition' means the condition in which the input of an external power supply is connected to the mains power source, but the output is not connected to any primary load;
- (15) 'active mode' means a condition in which the input of an external power supply is connected to the mains power source and the output is connected to a primary load;
- (16) 'active mode efficiency' means the ratio of the power produced by an external power supply in active mode to the input power required to produce it;
- (17) 'average active efficiency' means the average of the active mode efficiencies at 25 %, 50 %, 75 % and 100 % of the nameplate output power;
- (18) 'equivalent model' means a model which has the same technical characteristics relevant for the technical information to be provided, but which is placed on the market or put into service by the same manufacturer, importer or authorised representative as another model with a different model identifier;
- (19) 'model identifier' means the code, usually alphanumeric, which distinguishes a specific product model from other models with

the same trade mark or the same manufacturer's, importer's or authorised representative's name.

- (20) 'charger' means an external power supply to charge the battery of and provide electrical power to a battery-powered device;(21) 'wireless charger' means a system used to charge without contact of metallic conductors removable or integrated rechargeable batteries typically used in the equipment included in Annex I, which is not wired to this equipment and has a nameplate output power not exceeding 250 watts.
- (22) 'wireless charging pad' means a device that meets all of the following criteria:
 - (a) it is designed to transmit power by inductive coupling;
 - (b) it is used with one or more separate devices that constitute the primary load;
 - (c) it is contained in a physical enclosure separate from the device or devices that constitute the primary load;
 - (d) it has nameplate output power not exceeding 60 watts;
 - (e) it is used or intended to be used with electrical and electronic household and office equipment included in Annex I;
- (23) 'charging station' means a device which connects directly at its output interface by means of contact of metallic conductors with a battery-operated appliance which is placed in it for the purpose of charging.
- (24) 'adaptive external power supply' means an external power supply that can alter its output voltage during active-mode based on an established digital communication protocol with the end-use application without any user-triggered action.
- (25) 'USB-PD adaptive external power supply' means an adaptive external power supply, compliant with the USB Power Delivery specification;
- (26) 'Power Delivery' means the capability, defined according to the USB Power Delivery Specification to supply variable power as well as exchange data with devices connected via a USB connection.
- (27) 'containing product' means a product containing one or more external power supplies, and which has additional functions than the supply of DC electrical power which can be turned off without significant effort for the purpose of verification of the external power supplies. Examples of containing products are table-top LED lighting equipment with USB receptacles or wall-sockets with USB with USB receptacles.

Article 3

Ecodesign requirements

The ecodesign requirements set out in Annex II shall apply from the dates indicated therein.

Article 4

Conformity assessment

1. The conformity assessment procedure referred to in Article 8 of Directive 2009/125/EC shall be the internal design control system set out in Annex IV to that Directive or the management system set out in Annex V to that Directive.
2. For the purposes of the conformity assessment pursuant to Article 8 of Directive 2009/125/EC, the technical documentation shall contain the information provided in accordance with and in the order of the requirements laid down in Annex II, point 2(d).
3. Where the information included in the technical documentation for a particular model has been obtained:
 - (a) from a model that has the same technical characteristics relevant for the technical information to be provided but is produced by a different manufacturer, or
 - (b) by calculation on the basis of design or extrapolation from another model of the same or a different manufacturer, or both,the technical documentation shall include the details and the results of such calculation, the assessment undertaken by manufacturers to verify the accuracy of the calculation and, where appropriate, the declaration of identity between the models of different manufacturers.

The technical documentation shall include a list of all equivalent models, including the model identifiers.

Article 5

Verification procedure for market surveillance purposes

Member States' authorities shall apply the verification procedure laid down in Annex IV when performing the market surveillance checks referred to in Article 3, point 2 of Directive 2009/125/EC.

Article 6

Circumvention and software updates

The manufacturer or importer or authorised representative shall not place on the market products designed to be able to detect they are being tested (e.g. by recognising the test conditions or test cycle) and to react specifically by automatically altering their performance during the test with the aim of reaching a more favourable level, for any of the parameters declared by the manufacturer, importer or authorised representative, in the technical documentation or included in any of the documentation provided.

The energy consumption of the product and any of the other declared parameters shall not deteriorate after a software or firmware update when measured with the same test standard originally used for the declaration of conformity, except with explicit consent of the end-user prior to the update. No performance change shall occur as a result of rejecting the update.

A software update shall never have the effect of changing the product's performance in a way that makes it non-compliant with the ecodesign requirements applicable for the declaration of conformity.

Article 7

Benchmarks

The benchmarks for the best-performing products and technologies available on the market at the time of adopting this Regulation are set out in Annex V.

Article 8

Review

The Commission shall review this Regulation in the light of technological progress and shall present the results of this review, including, if appropriate, a draft revision proposal, to the Consultation Forum by *[OP please insert date – x years after its entry into force]*.

The review shall assess in particular: energy and material efficiency of external power supplies used with electrical and electronic equipment that is not included in Annex I.

Article 9

Repeal

Regulation (EU) No 2019/1782 is repealed as from [18 months after entry into force].

Article 10

Entry into force and application

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from dd.mm.yyyy.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, dd.mm.yyyy

For the Commission
The President