



BSI Standards Publication

Household and similar electrical appliances — Safety — Particular requirements for commercial electric washing machines

National foreword

This British Standard is the UK implementation of EN 50571:2013+A2:2024. It supersedes BS EN 50571:2013+A1:2018, which will be withdrawn on 15 November 2027.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CENELEC text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A1 is indicated by A1 A1.

The UK participation in its preparation was entrusted to Technical Committee CPL/61, Safety of household and similar electrical appliances.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

Household and similar electrical appliances - Safety - Particular requirements for commercial electric washing machines

Appareils électrodomestiques et analogues - Sécurité -
Règles particulières pour les machines à laver le linge à
usage collectif

Sicherheit elektrischer Geräte für den Hausgebrauch und
ähnliche Zwecke - Besondere Anforderungen für elektrische
Waschmaschinen für den gewerblichen Gebrauch

This amendment A1 modifies the European Standard EN 50571:2013; it was approved by CENELEC on 2017-06-26. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Comité Européen de Normalisation Electrotechnique
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Foreword

This document (EN 50571:2013) has been prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2014-06-10
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with (dow) 2016-06-10
this document have to be withdrawn

EN 50571:2013 is to be read in conjunction with EN 60335-1:2012 and its amendments, which is referred to in this text as "Part 1". This standard supplements or modifies the corresponding clauses of Part 1 as indicated in the text.

NOTE The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

Foreword to Amendment 1

This document (EN 50571:2013/A1:2018) has been prepared by CLC/TC 61, "Safety of household and similar electrical appliances".

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- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2018-07-12
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This amendment supplements or modifies the corresponding clauses of EN 60335-1:2012 including its amendments and EN 50571:2013.

EN 50571:2013/A1:2018 is to be read in conjunction with EN 60335-1:2012 and A11:2014, A12:2017, A13:2017, A1:201X, A14:201X, which is referred to in this text as "Part 1".

NOTE The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For the relationship with EU Directive see informative Annex ZZ, included in EN 50571:2013.

Foreword to Amendment 2

This document (EN 50571:2013/A2:2024) has been prepared by CLC/TC 61 “Safety of household and similar electrical appliances”.

The following dates are fixed:

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national level by publication of an identical national standard
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this document have to be withdrawn

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Introduction

 *Text deleted.* 

This standard is a product family standard dealing with the safety of commercial electric **washing machines** and takes precedence over horizontal and generic standards covering the same subject.

This standard recognises the level of protection against hazards such as electrical, mechanical, thermal, fire and radiation of commercial electric **washing machines** when operated as in normal use taking into account the manufacturer's instructions. It also covers any reasonably foreseeable misuse of the machinery and takes into account the way in which electromagnetic phenomena can affect the safe operation of commercial electric **washing machines**.

A commercial electric **washing machine** that complies with the text of this standard will not necessarily be considered to comply with the safety principles of the standard if, when examined and tested, it is found to have other features that impair the level of safety covered by these requirements.

This standard takes into account the requirements of HD 60364-1 as far as possible so that there is compatibility with the wiring rules when the machinery is connected to the supply mains. However, national wiring rules may differ.

 This European amendment A2 supplements or modifies the corresponding clauses of the standards below:

- EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021+A16:2023 (Part 1)
- EN 50571:2013+A1:2018 (Part 2) 

1 Scope

This clause of Part 1 is replaced by the following:

This European Standard deals with the safety of electrical operated **washing machines** intended to be used by trained users in e.g. hotels, hospitals, factories, in light industry and on farms. It also covers **washing machines** ^[A1] which are declared for commercial use in an **area open to the public** ^[A1] and operated by lay persons e.g. in laundrettes, communal laundry rooms. Their rated voltage being not more than 250 V for single phase and 480 V for others.

This standard also covers **washing machines** making use of other energy sources. It does not cover requirements for these other energy sources or compressed air. However the influence of these other energy sources on the machines is covered.

These **washing machines** are designed to be connected to hot and/or cold water supply.

Washing machines making use of steam or hot water for heating purposes are also within the scope of this standard.

This standard deals with the common hazards presented by **washing machines** that are encountered by all persons. However, in general, it does not take into account:

- a) persons (including children) whose:
 - 1) physical, sensory or mental capabilities, or
 - 2) lack of experience and knowledge,
 prevents them from using the **washing machine** safely without supervision or instruction;
- b) children playing with the **washing machine**.

Attention is drawn to the fact that:

- for commercial electric **washing machines** intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary,
- in many countries additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour, the national water supply authorities and similar authorities,
- for commercial electric **washing machines** having a drying function, EN 50570 (commercial electric tumble dryers) is also applicable.

^[A1] This European Standard does not apply to

- a) industrial laundry machinery with a drum volume > 150 l (EN ISO 10472-2),
- b) **washing machines** intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas). ^[A1]

For the purpose of this standard, the term “appliance” is to be read as “**washing machine** intended for commercial use.

2 Normative references

This clause of Part 1 is applicable except as follows:

Addition:

^[A2] EN 60204-1:2018, *Safety of machinery - Electrical equipment of machines - Part 1: General requirements*
Text deleted.

EN 60704-1:2010¹, *Household and similar electrical appliances - Test code for the determination of airborne noise - Part 1: General requirements*

^[A2] ¹ As amended by EN 60704-1:2010/A11:2012. ^[A2]

EN IEC 60730-2-12:2019, *Automatic electrical controls - Part 2-12: Particular requirements for electrically operated door locks (IEC 60730-2-12:2015)*

EN ISO 3744:2010, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

EN ISO 3746:2010, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Survey method using an enveloping measurement surface over a reflecting plane (ISO 3746:2010)*

EN ISO 4871:2009, *Acoustics - Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 9614-2:1996, *Acoustics - Determination of sound power levels of noise sources using sound intensity - Part 2: Measurement by scanning (ISO 9614-2:1996)*

EN ISO 11201:2010, *Acoustics - Noise emitted by machinery and equipment - Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201:2010)*

EN ISO 11203:2009², *Acoustics - Noise emitted by machinery and equipment - Determination of emission sound pressure levels at a work station and at other specified positions from the sound power level (ISO 11203:1995)*

EN ISO 11688-1:2009, *Acoustics - Recommended practice for the design of low-noise machinery and equipment - Part 1: Planning (ISO/TR 11688-1:1995)*

ISO 1817:2015, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*

EN 50640:2018, *Household and similar electric appliances - Methods for measuring the performance of clothes washing machines intended for commercial use*

EN 61010-1:2010³, *Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements*

Replace the reference to EN 62233 by:

EN 62233:2008, *Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure* ^{A2}

3 Terms and definitions

This clause of Part 1 is applicable except as follows:

3.1.9 normal operation

Addition:

the appliance is filled with textile material having a mass in the dry condition equal to the maximum mass stated in the instructions, and with the maximum quantity of water for which it is constructed. However, if the power input or current is higher when only 50 % of the textile material is used, the appliance is operated with this load instead

^{A2} **A steam generator** intended to be filled by hand is filled according to the instructions, water being added to maintain the steam generation.

A steam generator intended to be filled automatically is connected to the water mains. ^{A2}

The temperature of the water is:

- 65 °C ± 5 °C for appliances without heating elements,
- 15 °C ± 5 °C for other appliances,
- 15 °C ± 5 °C for appliances without heating elements and intended for connection to the cold water supply only.

^{A2} ² As amended by EN ISO 11203:2009/A1:2020.

³ As amended by EN 61010-1:2010/A1:2019 and EN 61010-1:2010/A1:2019/AC:2019-04. ^{A2}

If the appliance does not incorporate a programmer, the water is heated to $90\text{ °C} \pm 5\text{ °C}$ or as high as the construction will allow if lower, before starting the first washing period.

The textile material consists of pre-washed double-hemmed cotton sheets having dimensions approximately $70\text{ cm} \times 70\text{ cm}$ and a specific mass between 140 g/m^2 and 175 g/m^2 in the dry condition.

For impeller type appliances, if the textile material does not move properly during operation,

- *the quantity of textile material may be reduced until the maximum power input of the motor is attained, or*
- *a textile material comprising pre-washed double-hemmed cotton sheets, having dimensions of approximately $90\text{ cm} \times 90\text{ cm}$ and a mass between 90 g/m^2 and 110 g/m^2 in the dry condition, may be used.*

However, for impeller type appliances, in case of doubt, the test should be carried out using the reduced quantity of textile material.

Addition:

3.1.101 washing machine

appliances for cleaning and rinsing of textiles using water which may also have a means of extracting excess water from the textiles

3.1.102 agitator washing machine

appliance in which the textiles are substantially immersed in the washing water, the mechanical action being produced by a device moving about or along its vertical axis with a reciprocating motion (an agitator). This device usually extends above the maximum water level

3.1.103 horizontal drum washing machine

appliance in which the textiles are placed in a horizontal or inclined drum and partially immersed in the washing water, the mechanical action being produced by rotation of the drum about its axis, the movement being either continuous or periodically reversed

3.1.104 impeller washing machine

appliance in which the textiles are substantially immersed in the washing water, the mechanical action being produced by a device rotating about its axis continuously or reversing after a number of revolutions (an impeller). The uppermost point of this device is substantially below the minimum water level

3.1.105 washer-dryer

appliance which includes also a means for drying the textiles, usually by heating and tumbling

3.1.106 spin extraction

water-extracting function by which water is removed from textiles by centrifugal force. This is usually included as a function of an appliance

3.1.107 guard

part of the appliance specifically designed to provide protection by means of a physical barrier

3.1.108 operator

person or persons installing, operating, adjusting, maintaining, cleaning, repairing or moving appliances

3.1.109 workstation

place, as defined in the instructions of the relevant appliance, where the **operator** has to be in attendance to operate, or to adjust, or to control the appliance

Note 1 to entry: Example is the location where the **operator** loads the appliance.

3.1.110

area open to the public

area in which the general public including vulnerable people and children may have access

Note 1 to entry: Examples are laundrettes, communal laundry rooms. 