



BSI Standards Publication

Audio/video, information and communication technology equipment

Part 1: Safety requirements

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National foreword

This British Standard is the UK implementation of EN IEC 62368-1:2020 and EN IEC 62368-1:2020+A11:2020. It is derived from IEC 62368-1:2018. It supersedes BS EN 62368-1:2014+A11:2017, BS EN 60950-23:2006 and BS EN 60950-22:2017, which will be withdrawn on 6 January 2023.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A11 is indicated by A11 A11.

The UK participation in its preparation was entrusted to Technical Committee EPL/108, Safety of electronic equipment within the field of audio/video, information technology and communication technology.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Amendments/corrigenda issued since publication

Date	Text affected
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EUROPEAN STANDARD
NORME EUROPÉENNE
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EN IEC 62368-1+A11

March 2020

ICS 33.160.01; 35.020

Supersedes EN 60950-22:2017, EN 60950-23:2006, EN 62368-1:2014 and all of its amendments and corrigenda (if any)

English Version

**Audio/video, information and communication technology
equipment - Part 1: Safety requirements
(IEC 62368-1:2018)**

Équipements des technologies de l'audio/vidéo, de
l'information et de la communication - Partie 1: Exigences
de sécurité
(IEC 62368-1:2018)

Einrichtungen für Audio/Video-, Informations- und
Kommunikationstechnik - Teil 1: Sicherheitsanforderungen
(IEC 62368-1:2018)

This European Standard was approved by CENELEC on 2020-01-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 European Standard 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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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

This document (EN IEC 62368-1:2020) consists of the text of IEC 62368-1:2018 prepared by IEC/TC 108 "Safety of electronic equipment within the field of audio/video, information technology and communication technology".

The following dates are fixed:

- latest date by which this document has to be (dop) 2021-01-06
implemented at national level by publication
of an identical national standard or by
endorsement
- latest date by which the national standards (dow) 2023-01-06
conflicting with this document have to be
withdrawn

This document supersedes EN 60950-22:2017, EN 60950-23:2006 and EN 62368-1:2014 and all of its amendments and corrigenda (if any).

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.

Endorsement notice

The text of the International Standard IEC 62368-1:2018 was approved by CENELEC as a European Standard without any modification.

European foreword to amendment A11

This document (EN IEC 62368-1:2020/A11:2020) has been prepared by CLC/TC 108X "Safety of electronic equipment within the fields of Audio/Video, Information Technology and Communication Technology".

This document amends EN IEC 62368-1:2020.

The following dates are fixed:

- latest date by which this document has to (dop) 2021-01-06
be implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2023-01-06
standards conflicting with this document
have to be withdrawn

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2018 are prefixed "Z".

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60027-1	-	Letters symbols to be used in electrical technology - Part 1: General	EN 60027-1	-
IEC 60065	-	Audio, video and similar electronic apparatus - Safety requirements	EN 60065	-
IEC 60068-2-6	-	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	-
IEC 60068-2-11	-	Basic environmental testing procedures - Part 2-11: Tests - Test Ka: Salt mist	EN 60068-2-11	-
IEC 60068-2-78	-	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	-
IEC 60073	-	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators	EN 60073	-
IEC 60076-14	-	Power transformers - Part 14: Liquid-immersed power transformers using high-temperature insulation materials	EN 60076-14	-
IEC/TR 60083	-	Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC	-	-
IEC 60085	-	Electrical insulation - Thermal evaluation and designation	EN 60085	-
IEC 60086-4	-	Primary batteries - Part 4: Safety of lithium batteries	EN 60086-4	-
IEC 60086-5	-	Primary batteries - Part 5: Safety of batteries with aqueous electrolyte	EN 60086-5	-
IEC 60107-1	1997	Methods of measurement on receivers for television broadcast transmissions - Part 1: General considerations - Measurements at radio and video frequencies	EN 60107-1	1997
IEC 60112	-	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN 60112	-
IEC 60127	series	Miniature fuses	EN 60127	series
IEC 60227-1	-	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	-	-
IEC 60227-2 + A1	1997 2003	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	-	-
IEC 60245-1	-	Rubber insulated cables - Rated voltages up to and including 450/750 V -- Part 1: General requirements	-	-

IEC 60296	-	Fluids for electrotechnical applications - Unused mineral insulating oils for transformers and switchgear	EN 60296	-
IEC 60309	series	Plugs, socket-outlets and couplers for industrial purposes	EN 60309	series
IEC 60317	series	Specifications for particular types of winding wires	EN 60317	series
IEC 60317-0-7	2017	Specifications for particular types of winding wires - Part 0-7: General requirements - Fully insulated (FIW) zero-defect enamelled round copper wire	EN 60317-0-7	2017
IEC 60317-43	-	Specifications for particular types of winding wires - Part 43: Aromatic polyimide tape wrapped round copper wire, class 240	EN 60317-43	-
IEC 60317-56	-	Specifications for particular types of winding wires - Part 56: Solderable fully insulated (FIW) zero-defect polyurethane enamelled round copper wire, class 180	EN 60317-56	-
IEC 60320	series	Appliance couplers for household and similar general purposes	EN 60320	series
IEC 60320-1	-	Appliance couplers for household and similar general purposes - Part 1: General requirements	EN 60320-1	-
IEC 60332-1-2	-	Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre-mixed flame	EN 60332-1-2	-
IEC 60332-1-3	-	Tests on electric and optical fibre cables under fire conditions - Part 1-3: Test for vertical flame propagation for a single insulated wire or cable - Procedure for determination of flaming droplets/particles	EN 60332-1-3	-
IEC 60332-2-2	-	Tests on electric and optical fibre cables under fire conditions - Part 2-2: Test for vertical flame propagation for a single small insulated wire or cable - Procedure for diffusion flame	EN 60332-2-2	-
IEC 60384-14	-	Fixed capacitors for use in electronic equipment - Part 14: Sectional specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	EN 60384-14	-
IEC 60417	Data-base	Graphical symbols for use on equipment	-	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	-
IEC 60664-1	2007	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	2007
IEC 60664-3	-	Insulation coordination for equipment within low-voltage systems - Part 3: Use of coating, potting or moulding for protection against pollution	EN 60664-3	-
IEC 60691	2015	Thermal-links - Requirements and application guide	EN 60691	2016

IEC 60695-2-11	-	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products (GWEPT)	EN 60695-2-11	-
IEC 60695-10-2	-	Fire hazard testing - Part 10-2: Abnormal heat - Ball pressure test method	EN 60695-10-2	-
IEC 60695-10-3	-	Fire hazard testing - Part 10-3: Abnormal heat - Mould stress relief distortion test	EN 60695-10-3	-
IEC 60695-11-5	2016	Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-5	2017
IEC 60695-11-10	-	Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods	EN 60695-11-10	-
IEC 60695-11-20	2015	Fire hazard testing - Part 11-20: Test flames - 500 W flame test method	EN 60695-11-20	2015
IEC/TS 60695-11-21	-	Fire hazard testing - Part 11-21: Test flames - 500 W vertical flame test method for tubular polymeric materials	-	-
IEC 60728-11	2016	Cable networks for television signals, sound signals and interactive services - Part 11: Safety	EN 60728-11	2017
-	-		+ A11	2018
IEC 60730	series	Automatic electrical controls	EN 60730	series
IEC 60730-1 (mod)	2013	Automatic electrical controls - Part 1: General requirements	EN 60730-1	2016
IEC 60738-1	2006	Thermistors - Directly heated positive temperature coefficient - Part 1: Generic specification	EN 60738-1	2006
IEC 60747-5-5	2007	Semiconductor devices - Discrete devices - Part 5-5: Optoelectronic devices - Photocouplers	EN 60747-5-5	2011
+ A1	2013		+ A1	2015
IEC 60825-1	-	Safety of laser products - Part 1: Equipment classification and requirements	EN 60825-1	-
IEC 60825-2	-	Safety of laser products - Part 2: Safety of optical fibre communication systems (OFCS)	EN 60825-2	-
IEC 60825-12	-	Safety of laser products - Part 12: Safety of free space optical communication systems used for transmission of information	EN 60825-12	-
IEC 60836	-	Specifications for unused silicone insulating liquids for electrotechnical purposes	EN 60836	-
IEC 60851-3	2009	Winding wires - Test methods - Part 3: Mechanical properties	EN 60851-3	2009
+ A1	2013		+ A1	2013
IEC 60851-5	2008	Winding wires - Test methods - Part 5: Electrical properties	EN 60851-5	2008
+ A1	2011		+ A1	2011
IEC 60884-1	-	Plugs and socket-outlets for household and similar purposes -- Part 1: General requirements	-	-
IEC 60896-11	-	Stationary lead-acid batteries - Part 11: Vented types - General requirements and methods of tests	EN 60896-11	-
IEC 60896-21	2004	Stationary lead-acid batteries - Part 21: Valve regulated types - Methods of test	EN 60896-21	2004

IEC 60896-22	-	Stationary lead-acid batteries - Part 22: Valve regulated types - Requirements	EN 60896-22	-
IEC 60906-1	-	IEC system of plugs and socket-outlets for household and similar purposes - Part 1: Plugs and socket-outlets 16 A 250 V a.c.		-
IEC 60906-2	-	IEC system of plugs and socket-outlets for household and similar purposes - Part 2: Plugs and socket-outlets 15 A 125 V a.c. and 20 A 125 V a.c.		-
IEC 60947-1	-	Low-voltage switchgear and controlgear - Part 1: General rules	EN 60947-1	-
IEC 60947-5-5	-	Low-voltage switchgear and controlgear - Part 5-5: Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function	EN 60947-5-5	-
IEC 60950-1	-	Information technology equipment - Safety - Part 1: General requirements	EN 60950-1	-
IEC 60990	2016	Methods of measurement of touch current and protective conductor current	EN 60990	2016
IEC 60998-1	-	Connecting devices for low-voltage circuits for household and similar purposes - Part 1: General requirements	EN 60998-1	-
IEC 60999-1	-	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm ² up to 35 mm ² (included)	EN 60999-1	-
IEC 60999-2	-	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 2: Particular requirements for clamping units for conductors above 35 mm ² up to 300 mm ² (included)	EN 60999-2	-
IEC 61039	-	Classification of insulating liquids	EN 61039	-
IEC 61051-1	-	Varistors for use in electronic equipment - Part 1: Generic specification	-	-
IEC 61051-2	1991	Varistors for use in electronic equipment - Part 2: Sectional specification for surge suppression varistors	-	-
+A1	2009			
IEC 61056-1	-	General purpose lead-acid batteries (valve-regulated types) - Part 1: General requirements, functional characteristics - Methods of test	EN 61056-1	-
IEC 61056-2	-	General purpose lead-acid batteries (valve-regulated types) - Part 2: Dimensions, terminals and marking	EN 61056-2	-
IEC 61058-1	2016	Switches for appliances - Part 1: General requirements	EN IEC 61058-1	2018
IEC 61099	-	Insulating liquids - Specifications for unused synthetic organic esters for electrical purposes	EN 61099	-
IEC 61204-7	-	Low-voltage switch mode power supplies - Part 7: Safety requirements	EN IEC 61204-7	-
IEC 61293	-	Marking of electrical equipment with ratings related to electrical supply - Safety requirements	EN 61293	-

IEC 61427	series	Secondary cells and batteries for renewable energy storage - General requirements and methods of test	EN 61427	series
IEC/TS 61430	-	Secondary cells and batteries - Test methods for checking the performance of devices designed for reducing explosion hazards - Lead-acid starter batteries	-	-
IEC 61434	-	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Guide to designation of current in alkaline secondary cell and battery standards	EN 61434	-
IEC 61558-1	2017	Safety of transformers, reactors, power supply units and combinations thereof - Part 1: General requirements and tests	FprEN 61558-1	2017
IEC 61558-2-16	-	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2-16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units	EN 61558-2-16	-
IEC 61643-11 (mod)	2011	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods	EN 61643-11	2012
-	-		+ A11	2018
IEC 61643-331	2017	Components for low-voltage surge protection - Part 331: Performance requirements and test methods for metal oxide varistors (MOV)	EN IEC 61643-331	2018
IEC 61810-1	2015	Electromechanical elementary relays - Part 1: General and safety requirements	EN 61810-1	2015
IEC 61959	-	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Mechanical tests for sealed portable secondary cells and batteries	EN 61959	-
IEC 61965	-	Mechanical safety of cathode ray tubes	EN 61965	-
IEC 61984	-	Connectors - Safety requirements and tests	EN 61984	-
IEC 62133	series	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications	EN 62133	series
IEC 62133-1	-	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications - Part 1: Nickel systems	EN 62133-1	-
IEC 62133-2	-	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems	EN 62133-2	-
IEC 62281	-	Safety of primary and secondary lithium cells and batteries during transport	EN 62281	-

IEC/TS 62332-1	-	Electrical insulation systems (EIS) - Thermal evaluation of combined liquid and solid components - Part 1: General requirements	-	-
IEC 62440	2008	Electric cables with a rated voltage not exceeding 450/750 V - Guide to use	-	-
IEC 62471 (mod)	2006	Photobiological safety of lamps and lamp systems	EN 62471	2008
IEC 62471-5	2015	Photobiological safety of lamps and lamp systems - Part 5: Image projectors	EN 62471-5	2015
IEC 62485-2	-	Safety requirements for secondary batteries and battery installations - Part 2: Stationary batteries	EN IEC 62485-2	-
IEC 62619	-	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for secondary lithium cells and batteries, for use in industrial applications	EN 62619	-
ISO 37	-	Rubber, vulcanized or thermoplastic - Determination of tensile stress-strain properties	-	-
ISO 178	-	Plastics - Determination of flexural properties	EN ISO 178	-
ISO 179-1	-	Plastics - Determination of Charpy impact properties - Part 1: Non-instrumented impact test	EN ISO 179-1	-
ISO 180	-	Plastics - Determination of Izod impact strength	EN ISO 180	-
ISO 306	-	Plastics - Thermoplastic materials - Determination of Vicat softening temperature (VST)	EN ISO 306	-
ISO 527	series	Plastics - Determination of tensile properties	EN ISO 527	series
ISO 871	-	Plastics - Determination of ignition temperature using a hot-air furnace	-	-
ISO 1798	-	Flexible cellular polymeric materials - Determination of tensile strength and elongation at break	EN ISO 1798	-
ISO 1817	2015	Rubber, vulcanized or thermoplastic - Determination of the effect of liquids	-	-
ISO 2719	-	Determination of flash point - Pensky-Martens closed cup method	EN ISO 2719	-
ISO 3231	-	Paints and varnishes - Determination of resistance to humid atmospheres containing sulfur dioxide	EN ISO 3231	-
ISO 3679	-	Determination of flash no-flash and flash point - Rapid equilibrium closed cup method	EN ISO 3679	-
ISO 3864	series	Graphical symbols - Safety colours and safety signs	-	-
ISO 3864-2	-	Graphical symbols - Safety colours and safety signs - Part 2: Design principles for product safety labels	-	-
ISO 4892-1	-	Plastics - Methods of exposure to laboratory light sources - Part 1: General guidance	EN ISO 4892-1	-
ISO 4892-2	-	Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps	EN ISO 4892-2	-