**CPR183/F15**

**KENYA BUREAU OF STANDARDS**

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| **Document Type:** | **Adoption proposal** | |
| **Dates:** | Circulation date | Closing date |
| 2022-01-21 | 2022-02-21 |
| **TC Secretary** | **This form shall be filled, signed and returned to Kenya Bureau of Standards for the attention of Robert Njoroge (njoroger@kebs.org)** | |

The Kenya Bureau of Standards intends to adopt the International Standards listed below.

We are therefore seeking views from potential users in respect of the same. The Standards are available at the Kenya Bureau of Standards Information Resource Centre. Please tick and fill your preference of the listed option in the attached table against each of the standards.

Where the option is that the adoption is not acceptable, you **MUST** give a reason(s) and recommendation(s).

**NOTE 1:** Absence of any reply or comments shall be deemed to be an acceptance of the proposal for adoption and **shall constitute an approval vote**.

1. **Number**: IEC 60670-21:2016 to replace KS IEC 60670-21:2004

**Title**: Boxes and enclosures for electrical accessories for household andsimilar fixed electrical installations - Part 21: Particular requirements for boxes and enclosures with provision for suspension means, Second Edition

**Scope**: IEC 60670-21:2004+A1:2016 applies to boxes, enclosures and parts of enclosures (hereafter called "boxes" and "enclosures") for electrical accessories with a rated voltage not exceeding 1 000 V a.c. and 1 500 V d.c. intended for household or similar fixed electrical installations, either indoors or outdoors. This part applies to boxes and enclosures with provision for suspension means

<https://webstore.iec.ch/publication/24214>

1. **Number**: IEC 60670-22: 2015 to replace KS IEC 60670-22: 2003

**Title**: Boxes and enclosures for electrical accessories for household and similar fixed electrical installations - Part 22: Particular requirements for connecting boxes and enclosures, Second Edition

**Scope**: IEC 60670-22:2003+A1:2015 applies to boxes, enclosures and parts of enclosures (hereafter called "boxes" and "enclosures") for electrical accessories with a rated voltage not exceeding 1 000 V a.c. and 1 500 V d.c. intended for household or similar fixed electrical installations, either indoors or outdoors. This standard applies to connecting boxes for junction(s) and/or tapping(s).

<https://webstore.iec.ch/publication/22004>

1. **Number**: IEC 60670-23: 2016 to replace KS IEC 60670-23:2006

**Title**: Boxes and enclosures for electrical accessories for household andsimilar fixed electrical installations - Part 23: Particular requirements for floor boxes and enclosures, Second Edition

**Scope**: IEC 60670-23:2006+A1:2016 This standard applies to boxes and enclosures intended to be installed in any kind of floor, and to protect accessories against load up to and including 1 000 N.

<https://webstore.iec.ch/publication/24238>

1. **Number**: IEC 61936-1:2021 to replace KS IEC 61936-1:2014

**Title**: Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 4: Resistance of earth connection and equipotential bonding, Second Edition

**Scope**: IEC 61936-1:2021 CMV contains both the official standard and its commented version. The commented version provides you with a quick and easy way to compare all the changes between IEC 61936-1:2021 CMV edition 3.0 and the previous IEC 61936-1:2010+AMD1:2014 CSV edition 2.1. Futhermore, comments from IEC TC 99 experts are provided to explain the reasons of the most relevant changes.  
  
IEC 61936-1:2021 provides requirements for the design and the erection of electrical power installations in systems with nominal voltages exceeding 1 kV AC and nominal frequency up to and including 60 Hz, so as to provide safety and proper functioning for the use intended.  
This document does not apply to the design and erection of any of the following:  
– overhead and underground lines between separate electrical power installations;  
– electrified railway tracks and rolling stock;  
– mining equipment and installations;  
– fluorescent lamp installations;  
– installations on ships according to IEC 60092 (all parts) and offshore units according to IEC 61892 (all parts), which are used in the offshore petroleum industry for drilling, processing and storage purposes;  
– electrostatic equipment (e.g. electrostatic precipitators, spray-painting units);  
– test sites;  
– medical equipment, e.g. medical X-ray equipment.  
This document does not apply to the design of prefabricated, type-tested switchgear and high voltage/low voltage prefabricated substation, for which separate IEC standards exist.  
  
This edition includes the following significant technical changes with respect to the previous edition:

1. introduction has been rewritten to reflect the status when this document is produced;
2. the scope has been improved to clarify the application of this document;
3. missing and obsolete terms and definitions have been updated including improvement of existing terms;
4. Table 1 has been updated where agreements between supplier and user are needed;
5. requirements of electromagnetic compatibility have been clarified;
6. insulation coordination clause (Clause 5) has improved wording for better clarity and the technical content has an updated coordination to the latest versions of the insulation coordination standards;
7. wording regarding electrical equipment has been improved and made clearer;
8. subclause for fuses has been improved and reworded;
9. requirements have been added for labelling when multiple sources are required to be disconnected;
10. missing requirements for GIS have been reintroduced;
11. subclause regarding ventilation (HVAC) has been improved;
12. figures in Clause 7 have been updated and moved to the corresponding subclause;
13. requirements for transformer installations have been improved including adjustment of editorial typing-errors;
14. clause on protection, automation and auxiliary systems has been restructured and improved;
15. protection against lightning strokes has been extended;
16. clarification of content due to the distinction between erection (and providing electrical safety for the intended use of the electrical power installation) and subsequent activities such as maintenance and repair with safe working procedures;
17. where no provincial, national or regional regulations are available for safe working procedures, an informative guideline is provided in Annex F. This replaces the former parts of Figure 3 in Clause 7.

<https://webstore.iec.ch/publication/69750>

1. **Number**: IEC 60034-3:2020 to replace KS IEC 60034-3:2007

**Title**: Rotating electrical machines - Part 3: Specific requirements for synchronous generators driven by steam turbines or combustion gas turbines and for synchronous compensators, Second Edition

**Scope**: IEC 60034-3:2020 applies to large three-phase synchronous generators, having rated outputs of 10 MVA and above driven by steam turbines or combustion gas turbines. Also included are synchronous Mvar compensators of the same output range connected to a grid for the purpose of exchanging reactive power. This document supplements basic requirements for rotating machines given in IEC 60034-1.

This seventh edition cancels and replaces the sixth edition published in 2007. This edition includes the following significant technical changes with respect to the previous edition:

- title modified;

- scope extended to synchronous compensators;

- rotor overcurrent requirements added;

- impact of stator harmonics on rotor unbalanced load capability introduced;

- synchronisation requirements added;

- adjustments of temperatures or temperature rise revised for gas turbine applications;

- requirements for auxiliaries updated.

<https://webstore.iec.ch/publication/27156>

1. **Number**: IEC 60309-1:2021

**Title**: Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes - Part 1: General requirements, First Edition

**Scope**: IEC 60309-1:2021 applies to plugs, fixed or portable socket-outlets and appliance inlets hereinafter referred to as accessories, with a rated operating voltage not exceeding 1 000 V DC or 1 000 V AC with a frequency not exceeding 500 Hz and a rated current not exceeding 800 A, primarily intended for industrial use, either indoors or outdoors.  
This fifth edition cancels and replaces the fourth edition published in 1999, Amendment 1:2005 and Amendment 2:2012. This edition constitutes a technical revision.  
This edition includes the following significant technical changes with respect to the previous edition:

1. addition of classification, requirements and tests for accessories with shutters;
2. additional marking to indicate neutral terminal and/or earthing terminal;
3. replacement of the term "connector" by the term "portable socket-outlet".

<https://webstore.iec.ch/publication/59916>

1. **Number**: IEC 60309-2:2021

**Title**: Plugs, fixed or portable socket-outlets and appliance inelts for industrial purposes - Part 2: Dimensional compatibility requirements for pin and contact-tube accessories, First Edition

**Scope**: IEC 60309-2:2021 applies to plugs, fixed or portable socket-outlets, and appliance inlets, hereinafter referred to as accessories, with a rated operating voltage not exceeding 1 000 V DC or 1 000 V AC with a frequency not exceeding 500 Hz and a rated current not exceeding 125 A, primarily intended for industrial use, either indoors or outdoors.  
This fifth edition cancels and replaces the fourth edition published in 1999, Amendment 1:2005 and Amendment 2:2012. This edition constitutes a technical revision.  
This edition includes the following significant technical changes with respect to the previous edition:

1. addition of requirements and test for non-solid pins;
2. additional rating IPX9;
3. additional marking to indicate neutral terminal and/or earthing terminal.

This document is to be read in conjunction with IEC 60309-1:2021.

<https://webstore.iec.ch/publication/59919>

1. **Number**: IEC 60309-4:2021

**Title**: Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes - Part 4: Switched socket-outlets with or without interlock, First Edition

**Scope**: IEC 60309-4:2021 applies to self-contained products primarily intended for industrial use, either indoors or outdoors that combine the following items within a single enclosure:  
– a fixed or portable socket-outlet according to IEC 60309-1 or IEC 60309-2 with a rated operating voltage not exceeding 1 000 V DC or 1 000 V AC with a frequency not exceeding 500 Hz and a rated current not exceeding 800 A;  
– a switching device.  
This second edition cancels and replaces the first edition published in 2006 and Amendment 1:2012. This edition constitutes a technical revision.  
This edition includes the following significant technical changes with respect to the previous edition:  
– updated in order to take into account the technical revisions to IEC 60309-1 and to IEC 60309-2.  
This document is to be read in conjunction with IEC 60309-1:2021 and with IEC 60309‑2:2021.

<https://webstore.iec.ch/publication/59920>

1. **Number**: IEC 60309-5:2017

**Title**: Plugs, socket-outlets and couplers for industrial purposes - Part 5: Dimensional compatibility and interchangeability requirements for plugs, socket-outlets, ship connectors and ship inlets for low-voltage shore connection systems (LVSC), First Edition

**Scope**: IEC 60309-5:2017 applies to a single type of plug, socket-outlet, ship connector and ship inlet, hereinafter referred to as accessories, intended to connect ships to dedicated shore supply systems described in IEC/IEEE 80005-3.

This part of IEC 60309 applies to three-phase accessories with an earth contact and with four pilot contacts.

This publication is to be read in conjunction with IEC 60309-1:2012.

<https://webstore.iec.ch/publication/26808>

1. **Number**: IEC 62444:2010

**Title**: Cable glands for electrical installations, First Edition

**Scope**: IEC 61557-13:2011 defines special performance requirements for hand-held and hand-manipulated current clamps and sensors for measurement of leakage currents in electrical distribution systems up to 1 000 V a.c. and 1 500 V d.c., taking into account the influence of high external low-frequency magnetic fields and other influencing quantities. This standard does not apply to current clamps or sensors which are used in combination with devices for insulation fault location according to IEC 61557-9, unless it is specified by the manufacturer.

<https://webstore.iec.ch/publication/7034>

1. **Number**: IEC 61921:2017

**Title**: Power capacitors - Low-voltage power factor correction banks, First Edition

**Scope**: IEC 61921:2017 RLV contains both the official IEC International Standard and its Redline version. The Redline version is available in English only and provides you with a quick and easy way to compare all the changes between the official IEC Standard and its previous edition.  
  
IEC 61921:2017 is applicable to low-voltage AC shunt capacitor banks intended to be used for power factor correction purposes, possibly equipped with a built-in switchgear and controlgear apparatus capable of connecting to or disconnecting from the mains part(s) of the bank with the aim to correct its power factor. Low-voltage power factor correction banks if not otherwise indicated hereinafter and where applicable comply with the requirements of IEC 61439-1 and IEC 61439-2. This second edition cancels and replaces the first edition published in 2003. It constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition: numerous changes regarding verification methods to align with IEC 61439-1; modification of marking; add routine verification of rated output; new Annex D with guidance on methods for temperature rise verification; update of normative references; general editorial review.

<https://webstore.iec.ch/publication/60937>

1. **Number**: IEC 61008-2-1:1990

**Title**: Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCB's). Part 2-1: Applicability of the general rules to RCCB's functionally independent of line voltage, First Edition

**Scope**: This Part 2-1 supplements or modifies the corresponding clauses in IEC 61008-1 to cover its applicability to RCCB's functionally independent of line voltage.

<https://webstore.iec.ch/publication/4265>

1. **Number**: IEC 61008-2-2:1990

**Title**: Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCB's). Part 2-2: Applicability of the general rules to RCCB's functionally dependent on line voltage, First Edition

**Scope**: This Part 2-2 supplements or modifies the corresponding clauses in IEC 61008-1 to cover its applicability to RCCB's functionally dependent on line voltage.

<https://webstore.iec.ch/publication/4266>

1. **Number**: IEC 61008-1:2013

**Title**: Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part1: General rules, First Edition

**Scope** IEC 61008-1:2010+A1:2012+A2:2013 applies to residual current operated circuit-breakers functionally independent of, or functionally dependent on, line voltage, for household and similar uses, not incorporating overcurrent protection (hereafter referred to as RCCBs), for rated voltages not exceeding 440 V a.c. with rated frequencies of 50 Hz, 60 Hz or 50/60 Hz and rated currents not exceeding 125 A, intended principally for protection against shock hazard. This third edition cancels and replaces the second edition published in 1996, amendment 1 (2002) and amendment 2 (2006). This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:

- complete revision of EMC sequences, including the new test T.2.6 already approved in IEC 61543;

- clarification of RCDs current/time characteristics reported in Tables 1 and 2;

- revision of test procedure for IΔn between 5 A and 200 A;

- testing procedure regarding the 6mA d.c. current superimposed to the fault current;

- improvement highlighting RCDs with multiple sensitivity;

- tests for the use of RCCBs in IT systems.

This consolidated version consists of the third edition (2010), its amendment 1 (2012), its amendment 2 (2013) and the corrigendum of January 2014. Therefore, no need to order amendments in addition to this publication.

<https://webstore.iec.ch/publication/4264>

1. **Number**: IEC 60898-3:2019

**Title**: Electrical accessories - Circuit-breakers for overcurrent protection for household and similar installations - Part 3: Circuit-breakers for DC operation, First Edition

**Scope**: IEC 60898-3:2019(E) applies to DC circuit-breakers, having a rated DC voltage not exceeding 440 V, a rated current not exceeding 125 A and a rated short-circuit capacity not exceeding 10 000 A.

These circuit-breakers are intended for the protection against overcurrents of wiring installations of buildings and similar applications; they are designed for use by uninstructed people and for not being maintained.

<https://webstore.iec.ch/publication/27206>

1. **Number**: IEC 61009-1:2013

**Title**: Residual current operated circuit-breakers with integral overcurrentprotection for household and similar uses (RCBOs) - Part 1: General rules, First Edition

**Scope**: IEC 61009-1:2010+A1:2012+A2:2013 applies to residual current operated circuit breakers with integral overcurrent protection functionally independent of, or functionally dependent on, line voltage for household and similar uses (hereafter referred to as RCBOs), for rated voltages not exceeding 440 V a.c. with rated frequencies of 50 Hz, 60 Hz or 50/60 Hz and rated currents not exceeding 125 A and rated short circuit capacities not exceeding 25 000 A for operation at 50 Hz or 60 Hz. This third edition cancels and replaces the second edition, published in 1996, amendment 1 (2002) and amendment 2 (2006). It constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:

- complete revision of EMC sequences, including the new test T.2.6, already approved in IEC 61543;

- clarification of RCDs current/time characteristics reported in Tables 2 and 3;

- revision of test procedure for IΔn between 5 A and 200 A;

- tests for the use of RCBOs in IT systems;

- testing procedure regarding the 6mA d.c. current superimposed to the fault current;

- improvement highlighting RCDs with multiple sensitivity;

- some alignments with IEC 60898-1.

<https://webstore.iec.ch/publication/4273>

1. **Number**: IEC 61009-2-1:1991

**Title**: Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 2-1: Applicability of the general rules to RCBO's functionally independent of line voltage, First Edition

**Scope**: This Part of IEC 61009 supplements or modifies the corresponding clauses in IEC 1009-1 to cover its applicability to RCBO's functionally independent of line voltage.

<https://webstore.iec.ch/publication/4274>

1. **Number**: IEC 61009-2-2:1991

**Title**: Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 2-2: Applicability of the general rules to RCBO's functionally dependent on line voltage, First Edition

**Scope**: This part of IEC 61009 supplements or modifies the corresponding clauses in IEC 61009-1 to cover its applicability to RCBO's functionally dependent on line voltage.

<https://webstore.iec.ch/publication/4275>

1. **Number**: IEC 63052:2019

**Title**: Power frequency overvoltage protective devices (POPs) for household and similar applications, First Edition

**Scope**: IEC 63052:2019 applies to devices for power frequency overvoltage protection (hereafter referred to as "POP") for household and similar uses, with a rated frequency of 50 Hz, 60 Hz or 50/60 Hz, with rated voltage not exceeding 230 V AC (between phase and neutral), and with rated current not exceeding 63 A, either consisting of a functional unit in combination with a main protective device (MPD), or as one single device having opening means able to open the protected circuit in specified conditions.  
The main protective device is a circuit-breaker, an RCCB or an RCBO.  
The contents of the corrigendum of November 2019 have been included in this copy.

<https://webstore.iec.ch/publication/26395>

1. **Number**: IEC 60826:2017 to replace KS IEC 61936-1:2014

**Title**: Design criteria of overhead transmission lines, Second Edition

**Scope**: IEC 60826:2017 RLV contains both the official IEC International Standard and its Redline version. The Redline version is available in English only and provides you with a quick and easy way to compare all the changes between the official IEC Standard and its previous edition.  
  
IEC 60826:2017: specifies the loading and strength requirements of overhead lines derived from reliability-based design principles. These requirements apply to lines 45 kV and above, but can also be applied to lines with a lower nominal voltage.  
This document also provides a framework for the preparation of national standards dealing with overhead transmission lines, using reliability concepts and employing probabilistic or semi-probabilistic methods. These national standards will need to establish the local climatic data for the use and application of this standard, in addition to other data that are country- specific.  
Although the design criteria in this standard apply to new lines, many concepts can be used to address the design and reliability requirements for refurbishment, upgrading and uprating of existing lines.  
This document does not cover the detailed design of line components such as supports, foundations, conductors or insulators strings.  
This fourth edition cancels and replaces the third edition published in 2003. It constitutes a technical revision.  
The main technical changes with regard to the previous edition are as follows:  
This standard has been further simplified by removing many informative annexes and theoretical details that can now be found in CIGRE Technical Brochure 178 and referred to as needed in the text of the standard. Many revisions have also been made that reflect the users experience in the application of this standard, together with information about amplification of wind speed due to escarpments. The annexes dealing with icing data have also been updated using new work by CIGRE.

<https://webstore.iec.ch/publication/59954>

**ADOPTION PROPOSAL**

| **S/No.** | **Standard Number** | **Adoption acceptable as presented** | **Adoption proposal not acceptable** | **Reason why adoption proposal not acceptable** | **Proposed Change/recommendation(s)** |
| --- | --- | --- | --- | --- | --- |
|  | IEC 60670-21:2016 |  |  |  |  |
|  | IEC 60670-22:2015 |  |  |  |  |
|  | IEC 60670-23:2016 |  |  |  |  |
|  | IEC 61936-1:2021 |  |  |  |  |
|  | IEC 60034-3:2020 |  |  |  |  |
|  | IEC 60309-1:2021 |  |  |  |  |
|  | IEC 60309-2:2021 |  |  |  |  |
|  | IEC 60309-4:2021 |  |  |  |  |
|  | IEC 60309-5:2017 |  |  |  |  |
|  | IEC 62444:2010 |  |  |  |  |
|  | IEC 61921:2017 |  |  |  |  |
|  | IEC 61008-2-1:1990 |  |  |  |  |
|  | IEC 61008-2-2:1990 |  |  |  |  |
|  | IEC 61008-1:2013 |  |  |  |  |
|  | IEC 60898-3:2019 |  |  |  |  |
|  | IEC 61009-1:2013 |  |  |  |  |
|  | IEC 61009-2-1:1991 |  |  |  |  |
|  | IEC 61009-2-2:1991 |  |  |  |  |
|  | IEC 63052:2019 |  |  |  |  |
|  | IEC 60826:2017 |  |  |  |  |

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| --- | --- | --- | --- |
| Name and (of respondent) |  | Position |  |
| Signature |  |  |  |

On behalf of: (Name of organization)

Date (& stamp):