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Responsible committee: EPL/97 Aeronautical ground lighting

Interested committees:

Title: BS EN IEC 61936-0 Power installations exceeding 1 kV AC and 1,5 kV DC

Part 0: Principles to be observed in the design and erection of high voltage installations - Safety of high voltage installations

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

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- ii) affects other national standard(s)
- iii) requires additional national guidance or information

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THIS DRAFT IS NOT CURRENT BEYOND 26 February 2025**

This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

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Information on the co-operating organizations represented on the committees referenced above may be obtained from <http://standardsdevelopment.bsigroup.com>

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



99/484/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER:

IEC 61936-0 ED1

DATE OF CIRCULATION:

2024-12-06

CLOSING DATE FOR COMMENTS:

2025-03-28

SUPERSEDES DOCUMENTS:

99/451/RR

IEC TC 99 : INSULATION CO-ORDINATION AND SYSTEM ENGINEERING OF HIGH VOLTAGE ELECTRICAL POWER INSTALLATIONS ABOVE 1,0 kV AC AND 1,5 kV DC

SECRETARIAT:

Australia

SECRETARY:

Ms Erandi Chandrasekare

OF INTEREST TO THE FOLLOWING COMMITTEES:

TC 1,TC 2,TC 8,TC 9,TC 11,TC 14,TC 17,TC 18,TC 22,TC 42,TC 44,TC 64,TC 88,TC 115,TC 117,TC 122,PC 127,PC 128,TC 129

HORIZONTAL FUNCTION(S):

TC 99 Horizontal Group Safety

ASPECTS CONCERNED:

Safety

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Recipients of this document are invited to submit, with their comments, notification of any local regulations or technical reasons that may exist and should be considered should this proposal proceed, recognizing that failure to address such requirements could result in the need for new or existing "In Some Countries" clauses. (SEE [AC/22/2007](#) OR [NEW GUIDANCE DOC](#)).

TITLE:

Power installations exceeding 1 kV AC and 1,5 kV DC - Part 0: Principles to be observed in the design and erection of high voltage installations - Safety of high voltage installations

NOTE FROM TC/SC OFFICERS:

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**POWER INSTALLATIONS EXCEEDING 1 KV AC AND 1,5 KV DC - PART 0:
PRINCIPLES TO BE OBSERVED IN THE DESIGN AND ERECTION OF HIGH
VOLTAGE INSTALLATIONS - SAFETY OF HIGH VOLTAGE
INSTALLATIONS –****FOREWORD**

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IEC TS 61936-0 has been prepared by technical committee 99: Insulation co-ordination and system engineering of high voltage electrical power installations above 1,0 kV AC and 1,5 kV DC. It is a Technical Specification.

This XXX edition cancels and replaces the XXX edition published in [publication_date], Amendment 1:[publication_date] and Amendment 2:[publication_date]. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) ...;
- b) ...

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
99/XX/DTS	99/XX/RVDTs

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Specification is English [change language if necessary].

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the [IEC 61936 \(all parts\) \[1\]](#), published under the general title *Power installations exceeding 1 kV AC and 1,5 kV DC*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

The scope of TC 99 is the standardisation of insulation co-ordination for high voltage systems and common rules and particular requirements for system engineering and erection of high voltage electrical power installations for power generation, transmission, distribution, and consumer premises, in both indoor and outdoor situations, with particular consideration of safety aspects.

With the increasing development of electric power systems and renewable energy devices, there is an increasing demand for Technical Committees to define installations, systems and equipment at voltages above 1,0 kV AC and 1,5 kV DC.

The objective of this GSP (Group safety publication) is to give the principles for TCs in how to define requirements with respect to HV installations to ensure that safety of such systems is maintained and that a consistent approach is taken by all TCs involved with HV installations with respect to design, operation and maintenance of installation at voltages above 1,0 kV AC and 1,5 kV DC.

Figure 1 below describes the relationship of this document to other IEC standards:

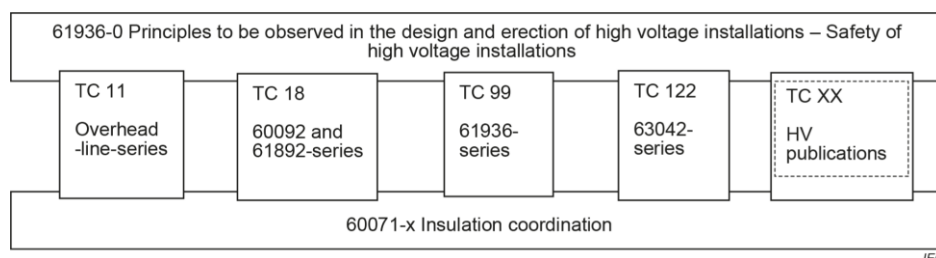


Figure 1 – Relationship of IEC 61936-0 to other IEC standards

Further reading:

IEC 60038, *IEC standard voltages*

IEC 60092, *Electrical installations in ships*

IEC 60417, *Graphical symbols for use on equipment*, available at <https://std.iec.ch/iec60417>

IEC 60990, *Methods of measurement of touch current and protective conductor current*

IEC 61892 (all parts), *Mobile and fixed offshore units - Electrical installations*

IEC 63042 (all parts), *UHV AC transmission systems*

B3/CIREN Technical Brochure Substation earthing system design optimisation through the application of quantified risk analysis Reference: 749, 2018

Norwegian “Regulations on electrical supply installations”, 2006

CIGRE Technical Brochure 391 “Guide for measurement of radio frequency interference from HV and MV substations”

CIGRE Technical Brochure 535 “EMC within power plants and substations”

POWER INSTALLATIONS EXCEEDING 1 KV AC AND 1,5 KV DC - PART 0: PRINCIPLES TO BE OBSERVED IN THE DESIGN AND ERECTION OF HIGH VOLTAGE INSTALLATIONS - SAFETY OF HIGH VOLTAGE INSTALLATIONS –

1 Scope

This document provides principles to ensure the coherence amongst HV publications to be observed necessary for the coordination of the design, selection of equipment, operation, and maintenance activities for erection of electrical HV installations to ensure the safety of such systems.

In the context of this document, "safety" relates to the safety of persons, domestic animals, livestock and property.

This GROUP SAFETY PUBLICATION focusing on safety essential requirements is primarily intended to be used as a SAFETY STANDARD for the installations mentioned in the scope, but is also intended to be used by TCs in the preparation of publications for installations similar to those mentioned in the scope of this GROUP SAFETY PUBLICATION, in accordance with the principles laid down in IEC Guide 104 and ISO/IEC Guide 51.

One of the RESPONSIBILITIES of a TC is, wherever applicable, to make use of BSPs and/or GSPs in the preparation of its publications.

2 Normative references

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.

IEC 60068 (all parts), *Environmental testing*

IEC 60071 (all parts), *Insulation co-ordination*

IEC 60445, *Basic and safety principles for man-machine interface, marking and identification - Identification of equipment terminals, conductor terminations and conductors*

IEC TR 60479-5, *Effects of current on human beings and livestock - Part 5: Touch voltage threshold values for physiological effects*

IEC 60529, *Degrees of protection provided by enclosure (IP Code)*

IEC 60721 (all parts), *Classification of environmental conditions*

ISO/IEC Guide 51:2014, *Safety aspects - Guidelines for their inclusion in standards*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>