



TECHNICAL SPECIFICATION

**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**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms and definitions	7
4 General requirements for design, construction, operation and maintenance.....	15
4.1 General.....	15
4.2 Basic requirements during faults	15
4.3 Danger signs and labelling.....	15
4.4 Protection, automation, and auxiliary systems.....	15
4.5 Considerations of design to ensure maintainability, constructability, and operability.....	15
5 Protection against electric shock	16
5.1 General.....	16
5.2 Normal conditions	16
5.3 Single-fault conditions.....	16
5.3.1 General	16
5.3.2 Protection by independent protective provisions	17
5.4 Protective provisions (elements of protective measures).....	17
5.4.1 General	17
5.4.2 Basic protection (protection against direct contact).....	17
5.4.3 Provisions for fault protection (protection against indirect contact).....	19
5.5 Protective measures	21
5.5.1 General	21
5.5.2 Protection by manual disconnection of supply.....	22
5.5.3 Protection by automatic disconnection of supply	22
5.5.4 Protection by earthed protective equipotential bonding	22
5.5.5 Protection by limiting touch voltage	23
6 Protection against thermal hazards.....	23
6.1 General.....	23
6.2 Normal conditions	23
6.2.1 General	23
6.2.2 Protection against overload	23
6.3 Single fault conditions.....	24
6.3.1 General	24
6.3.2 Protection against short circuit currents	24
6.3.3 Protection against arc faults	24
6.3.4 Protection against fire hazard	25
7 Protection against mechanical hazards.....	26
7.1 General.....	26
7.2 Sources of mechanical stress/load.....	26
7.2.1 General	26
7.2.2 Load cases to be considered for design.....	26
7.3 Withstand loads due to arc-faults and explosions.....	27

- 8 Protection against voltage and frequency deviations hazards 27
 - 8.1 Overvoltage withstand and protection 27
 - 8.2 Undervoltage protection 28
 - 8.3 Over- and underfrequency 28
- 9 Induced potentials to telecommunication and other infrastructure 28
- 10 Electric and magnetic fields 28
- Bibliography 29

- Figure 1 – Relationship of IEC 61936-0 to other IEC standards 6

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.

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

Draft	Report on voting
99/375/DTS	99/404/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.

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 https://www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at <https://www.iec.ch/standardsdev/publications>.

A list of all parts in the IEC 61936 series, 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,
- replaced by a revised edition, or
- amended.

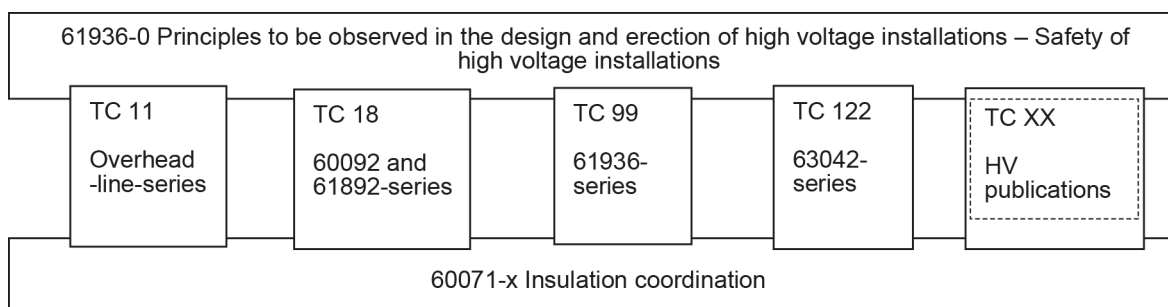
INTRODUCTION

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. This requirement became evident during the activities of TC 99 AhG6's discussions with TC 18 and TC 88 where a review of documents prepared by these TCs showed that there was a need for a document which defines principles to be observed in design and the erection of HV installations.

The objective of this document 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:



IEC

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

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 part of IEC 61936 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 Technical Specification is intended for use by technical committees in the preparation of standards with safety aspects which can be a part of an electrical high voltage installation.

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.

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

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*