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SANS 10142-2:2018

Edition 1.2

SOUTH AFRICAN NATIONAL STANDARD

The wiring of premises

Part 2: Medium-voltage installations above 1 kV a.c. not exceeding 22 kV a.c. and up to and including 3 MVA installed capacity

Amdt 1

WARNING

**This document references other
documents normatively.**

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Table of changes

Change No.	Date	Scope
Amdt 1	2014	Amended to change the power rating 3 000 kW to 3 MVA, to update referenced standards and applicable standards (in table 1), to delete definitions and re-number the remaining definitions accordingly, to delete tables, to change the requirements for testing of transformers, testing of batteries, type test reports and installed capacity levels, and to merge requirements in the medium-voltage installation safety report.
Amdt 2	2018	Amended to update referenced standards, to update general requirements and to delete the annex on the appointment of competent persons in South Africa.

Foreword

This South African standard was prepared by National Committee SABS/TC 067/SC 06, *Electricity distribution systems and components – Installations*, in accordance with procedures of the South African Bureau of Standards, in compliance with annex 3 of the WTO/TBT agreement.

This document was approved for publication in May 2018.

This document supersedes SANS 10142-2:2014 (edition 1.1).

A vertical line in the margin shows where the text has been technically modified by amendment No. 2.

This document is referenced in the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).

Reference is made in 3.1.2 to the "relevant authority". In South Africa this means the National Energy Regulator of South Africa (NERSA).

Reference is made in 3.7.1, 3.7.3, the NOTE to 5.1.1, 5.10.10, 6.10 and clause 10 to "legislation". In South Africa this means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).

Reference is made in 3.7.2 to "the engineering council". In South Africa this means the Engineering Council of South Africa (ECSA).

Reference is made in 4.1.1 and 4.1.2 to the "Electrical Installation Regulations". In South Africa this means the Electrical Installation Regulations of the said Occupational Health and Safety Act.

Reference is made in 5.4.2 and 5.5.3 to the "Electrical Machinery Regulations". In South Africa this means the Electrical Machinery Regulations of the said Occupational Health and Safety Act.

Reference is made in 4.1.2 to the "competent person". In South Africa this means the competent person in terms of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and Electrical Installation Regulations.

Reference is made in A.4 to the "commission of examiners". In South Africa this means the Commission of Examiners for the Government Certificate of Competency.

SANS 10142 consists of the following parts, under the general title *The wiring of premises*:

Part 1: Low-voltage installations.

Part 2: Medium-voltage installations above 1 kV a.c. not exceeding 22 kV a.c. and up to and including 3 MVA installed capacity.

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Annex B forms an integral part of the document.

Compliance with this document cannot confer immunity from legal obligations.

Introduction

The purpose of this document is to provide, in a convenient form, common rules for the safety of specific, fixed, MV electrical installations in systems with nominal voltages above 1 kV not exceeding 22 kV a.c. and up to and including 3 MVA installed capacity. (All parts of the final MV installation below 1 kV are covered by the requirements of SANS 10142-1.) This document contains minimum requirements and additional information with regard to the safe operation, and to ensure acceptable reliability, of the medium-voltage part of an electrical installation.

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This document covers the system engineering and erection, particularly concerning the safety aspects, of the said electrical power installations.

Installations and equipment will be capable of withstanding the electrical, mechanical, climatic and environmental influences anticipated on site.

In terms of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), the provisions of this part of SANS 10142 apply only from the point of control to the point of consumption. Because this document is continually updated, problems can arise on which version of the standard will be applicable when a contract is signed. The date of approval of the latest revision or amendment of this document will be the implementation date of the revision or the amendment. The applicable version of this document is the one with the latest implementation date before the contract date. So contracts signed before the approval of an amendment have to be carried out in accordance with the provisions of the unamended standard. If an existing installation is extended or altered, such extension or alteration is required to comply with the provisions of this document that were applicable at the time of erection of the extension or alteration. The edition of the standard that was applicable at the date of erection of an electrical installation is to be considered the edition defining the requirements applicable to that particular electrical installation.