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SANS 10198-13:2016

Edition 2

SOUTH AFRICAN NATIONAL STANDARD

**The selection, handling and installation
of electric power cables of rating
not exceeding 33 kV**

**Part 13: On-site testing, commissioning,
maintenance, diagnostics and fault location**

WARNING

**This document references other
documents normatively.**

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Table of changes

Change No.	Date	Scope

Foreword

This South African standard was approved by National Committee SABS/TC 066, *Electric cables*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This document was approved for publication in July 2016.

This document supersedes SABS 0198-13:1988 (edition 1 as modified by amdt 1:1990 and amdt 2:1995).

SANS 10198 consists of the following parts, under the general title *The selection, handling and installation of electric power cables of rating not exceeding 33 kV*:

Part 1: Definitions and statutory requirements.

Part 2: Selection of cable type and methods of installation.

Part 3: Earthing systems – General provisions.

Part 4: Current ratings.

Part 5: Determination of thermal and electrical resistivity of soil.

Part 6: Transportation and storage.

Part 7: Safety precautions.

Part 8: Cable laying and installation.

Part 9: Jointing and termination of extruded solid dielectric-insulated cables up to 3,3 kV.

Part 10: Jointing and termination of paper-insulated cables.

Part 11: Jointing and termination of screened polymeric-insulated cables.

Part 12: Installation of earthing system.

Part 13: On-site testing, commissioning, maintenance, diagnostics and fault location.

Part 14: Installation of aerial bundled conductor (ABC) cables.

Annexes A to D are for information only.

Compliance with a standard cannot confer immunity from legal obligations.

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The selection, handling and installation of electric power cables of rating not exceeding 33 kV

Part 13:

On-site testing, commissioning, maintenance, diagnostics and fault location

1 Scope

This part of SANS 10198 covers the on-site testing, commissioning, maintenance, diagnostics and fault location of cables.

2 Normative references

The following referenced documents are indispensable for the application 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. Information on currently valid national and international standards can be obtained from the SABS Standards Division.

IEC 60071-1, *Insulation co-ordination – Part 1: Definitions, principles and rules.*

SANS 10198-1, *The selection, handling and installation of electric power cables of rating not exceeding 33 kV – Part 1: Definitions and statutory requirements.*

SANS 10198-7, *The selection, handling and installation of electric power cables of rating not exceeding 33 kV – Part 7: Safety precautions.*

SANS 60270/IEC 60270, *High-voltage test techniques – Partial discharge measurements.*

3 Definitions and abbreviations

For the purposes of this document the definitions and abbreviations given in SANS 10198-1, SANS 60270 and the following apply.

3.1 Definitions

3.1.1

commissioning test

acceptance test

on-site test done before first energizing a newly installed cable system that is intended to verify the integrity of the insulation and installation (for example cable laying and workmanship) of the cable system (i.e. cable, joints and terminations)