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SOUTH AFRICAN NATIONAL STANDARD

Electricity payment systems

Part 1: Payment meters

WARNING

This document references other documents normatively.

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Table of changes

| Change No. | Date | Scope |
|-------------------|-------------|---|
| Amdt 1 | 2014 | Amended to update referenced standards. |
| Amdt 2 | 2017 | Amended to update referenced standards. |

Foreword

This South African standard was prepared by National Committee SABS/TC 062, *Electrical energy measurement and control*, 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 2017.

This document supersedes SANS 1524-1:2010 (edition 5.1).

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

This document, by reference, forms part of the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000).

SANS 1524 consists of the following parts, under the general title *Electricity payment systems*:

Part 1: Payment meters.

Part 1-1: Mounting and terminal requirements for payment meters.

Part 1-2: Surge protective devices for the protection of payment meters.

Part 4: National payment electricity meter cards.

Part 6-10: Interface standards – Part 6-10: Online vending server – Vending clients.

Part 8: The management of secure modules.

Part 9: Implementing electricity vending systems.

Annex E forms an integral part of this document. Annexes A, B, C and D are for information only.

Compliance with this document cannot confer immunity from legal obligations.

Introduction

An electricity payment system is intended to provide the electricity supply authority with a means of controlling the sale of electricity to its customers. The system will enable customers to purchase units of electricity from places and at times convenient to both the customer and the electricity supply authority. The system should provide for accounting, data collection and processing to aid administration of the system and it should provide safeguards against fraud.

Although this document, which covers minimum requirements for payment meters, has been compiled with a view to cost-effectiveness and simplicity, it is recommended that it be used as a basis for specifying more complex systems that incorporate additional features.

This document covers only the payment meters. Meters with additional or increased functionality have been included as have multi-part installations in which the functional elements may be partitioned into two or more units with appropriate communication between them. A future additional part will cover mounting and terminal arrangements.

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Electricity payment systems

Part 1: Payment meters

1 Scope

This part of SANS 1524 specifies characteristics of single and polyphase payment meters for indoor use, and requirements for meters used in reticulation subsystems which require meters to have integrated additional protection, safety and control functionality. This part of SANS 1524 includes the scope of SANS 62055-31.

NOTE 1 To differentiate amongst some of these requirements, load switching facilities and meter categories are defined in table 1.

NOTE 2 See annex A for the quality verification of payment meters.

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 South African Bureau of Standards.

SANS 556-1, *Low-voltage switchgear – Part 1: Circuit-breakers.*

SANS 556-2-1, *Low-voltage switchgear Part 2-1: Earth leakage circuit-breakers.* **Amdt 2**

SANS 556-2-3, *Low-voltage switchgear Part 2-3: Modular earth leakage devices (without integral current breaking).* **Amdt 2**

SANS 15417/ISO/IEC 15417, *Information technology – Automatic identification and data capture techniques – Code 128 bar code symbology specification.* **Amdt 1**

SANS 60947-3/IEC 60947-3, *Low-voltage switchgear and controlgear – Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units.*

SANS 61643-11/IEC 61643-11, *Low-voltage surge protective devices – Part 1: Surge protective devices connected to low-voltage power distribution systems – Requirements and test methods.* **Amdt 1**

SANS 62052-11/IEC 62052-11, *Electricity metering equipment (a.c.) – General requirements, tests and test conditions – Part 11: Metering equipment.*