

ISBN 978-0-626-28666-8

**SANS 1356:2006**

Edition 2

# **SOUTH AFRICAN NATIONAL STANDARD**

## **Fixed electric instantaneous water heaters**

---

Published by SABS Standards Division  
1 Dr Lategan Road Groenkloof ☒ Private Bag X191 Pretoria 0001  
Tel: +27 12 428 7911 Fax: +27 12 344 1568  
[www.sabs.co.za](http://www.sabs.co.za)  
© SABS

**SABS**

---

**SANS 1356:2006**  
Edition 2

<b>Change No.</b>	<b>Date</b>	<b>Scope</b>

**Foreword**

This South African standard was approved by National Committee SABS TC 75, *Performance of household and similar electrical appliances*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This edition cancels and replaces the first edition (SABS 1356:1982).

Annexes A and B form an integral part of this standard. Annex C is for information only.

**Reaffirmed and reprinted in March 2013.  
This document will be reviewed every five years  
and be reaffirmed, amended, revised or withdrawn.**

## Contents

	Page
Foreword	
<b>1</b> Scope .....	3
<b>2</b> Normative references .....	3
<b>3</b> Definitions .....	3
<b>4</b> Type, class and constructional requirements .....	5
<b>5</b> Electrical and physical requirements .....	6
<b>6</b> Safety requirements .....	6
<b>7</b> Marking and operating instructions .....	8
<b>8</b> Inspection and methods of test .....	9
<b>8.1</b> Inspection .....	9
<b>8.2</b> Test conditions .....	9
<b>8.3</b> Endurance test .....	10
<b>8.4</b> Small withdrawals test .....	10
<b>8.5</b> Flow switch test .....	10
<b>8.6</b> Pressure test .....	10
<b>8.7</b> Temperature limit test .....	11
<b>8.8</b> Thermal cut-out test .....	11
<b>8.9</b> Pressure-sensitive safety device test .....	11
<b>8.10</b> Temperature-sensitive safety device test .....	11
<b>8.11</b> Performance test .....	12
<b>8.12</b> Pressure relief device test .....	12
<b>8.13</b> Additional leakage current measurement in the case of class I bare-element water heaters .....	12
<b>Annex A</b> (normative) Notes to purchasers .....	14
<b>Annex B</b> (normative) Sampling and compliance with this standard .....	14
<b>Annex C</b> (informative) Quality verification of fixed electric instantaneous water heaters .....	15
<b>Bibliography</b> .....	15

**SANS 1356:2006**  
Edition 2

**This page is intentionally left blank**

## **Fixed electric instantaneous water heaters**

### **1 Scope**

This standard covers two types of fixed electric instantaneous water heaters fitted with elements of the sheathed or bare type for heating water to a temperature below boiling point, suitable for operation on single-phase or three-phase a.c. supplies at voltages not exceeding 250 V to earth with rated loadings not exceeding 9 kW in the case of single-phase and 28 kW in the case of three-phase appliances, and intended for domestic or similar use.

### **2 Normative references**

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this standard are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards can be obtained from the SABS Standards Division.

SANS 181, *Thermostats for electric storage water heaters.*

SANS 757, *Sheet steel furniture.*

SANS 1109-1/ISO 7-1, *Pipe threads where pressure-tight joints are made on the threads – Part 1: Dimensions, tolerances and designation.*

SANS 60335-2-35/IEC 60335-2-35, *Household and similar electrical appliances – Safety – Part 2-35: Particular requirements for instantaneous water heaters.*

### **3 Definitions**

For the purposes of this standard, the definitions given in SANS 60335-2-35 and the following definitions apply.

#### **3.1**

##### **acceptable**

acceptable to the authority administering this standard, or to the parties concluding the purchase contract, as relevant