

Specification for

Safety of household electrical appliances —

Part 2: Particular requirements —

Section 2.26 Thermal-storage electric
room heaters

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Association of Control Manufacturers	Joint Fire Research Organisation of the Department of the Environment and Fire Offices
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Foreword

This revised British Standard has been prepared under the authority of the Electrical Industry Standards Committee and is one of a series of sections of the specification covering the safety requirements for household electrical appliances¹⁾.

The revision is needed because BS 3456-A1, “*General requirements for heating and cooking appliances*”, and Section B1, “*General requirements for motor-operated appliances*”, have been revised in order to bring these sections into alignment with the corresponding Publications of the International Commission on Rules for the Approval of Electrical Equipment (CEE). These are Parts 1 of CEE Publications 10 and 11 (second editions) for motor-operated appliances and for cooking and heating appliances respectively.

The opportunity has been taken to amalgamate Sections A1 and B1 into a single Part 1, “General requirements”, and this Section 2.26 is one of many in Part 2, “Particular requirements”.

This Section 2.26 specifies requirements which depart from, or are additional to, those given in the latest edition of BS 3456-1, “*General requirements*” and the clauses are numbered to correspond with those given in Part 1.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

¹⁾ See the inside back cover of this standard.

1 Scope

This Section 2.26 of BS 3456 covers electric thermal-storage room heaters for household use.

Heaters incorporating one or more supplementary elements for direct heating are required to meet additional requirements as prescribed in Section 2.10 of BS 3456-2.

It does not apply to centrally-sited ducted warm air heaters except as specified in 4.I of this Section 2.26 nor to floor-warming installations.

It is to be read in conjunction with the latest edition of Part 1 and the appliances are required to comply in all respects with the requirements specified in Part 1, except in so far as they are modified by this Section 2.26.

NOTE The titles of the British Standards referred to in this standard are listed on page 10.

2 Definitions

For the purposes of this section of this British Standard, the definitions of Part 1 apply, with the following modification and additions:

to 2.25 as a modification:

Rated operating time. The periods and sequence of charge and discharge in a 24 hour cycle assigned to the heater by the maker.

The following additional definitions apply:

I. Thermal-storage room heater (hereinafter referred to as a heater). A room heating appliance designed to operate on a cycle of charge and discharge so that it stores heat which is derived from electrical energy during the charging period and discharges it during the charge and discharge periods.

II. Free output heater. A heater in which the heat is discharged by the natural processes of convection and radiation and is not capable of variation by the user, other than by prior adjustment of the input.

III. Controlled output heater. A heater in which the heat discharge may be varied directly during the charge or discharge period by the operation of integral and/or external control means.

IV. Charge controller. A device, such as a thermostat, energy regulator or the like, integral with the heater, which enables the energy input to be regulated.

V. Output regulator. A manually-operated or automatic device integral with the heater which enables the rate of heat discharge to be varied.

VI. Charge acceptance. The amount of energy expressed in kilowatt-hours (kW h), consumed during the rated operating time, with the controls set to give maximum throughput and after steady conditions have been established.

3 General requirement

This clause of Part 1 applies.

4 General conditions for the tests

This clause of Part 1 applies, with the following modification and additions:

to 4.3 as a modification:

The tests of Clause 12 shall be carried out before those of Clause 11. The order of the remaining tests shall be unchanged.

The following additional subclauses apply:

I. In general, where a heater incorporating a fan is provided with one or more auxiliary warm air outlets, the heater shall be tested under the condition where air is discharged through the main outlet only into the room where the heater is installed. Tests applicable to air outlets shall also be carried out on the auxiliary outlets, e.g. Clause 11, 19.II ii) and 19.III ii).

II. The appliance shall be connected to the supply by a flexible cord with a current carrying capacity appropriate to the rated input of the appliance, as determined by reference to Table 9 of Part 1.

For appliances having a rated input above 6 kW cables complying with the requirements of BS 6007 shall be used.

III. Where the heater is to be operating for the purposes of the tests it shall be cycling according to the rated operating time(s) and the controls shall be set according to 4.9.

NOTE Adjustments may be made to the controls at any time during a cycle to produce the most onerous condition.

5 Rating

This clause of Part 1 applies.

6 Classification

This clause of Part 1 applies.

7 Marking

This clause of Part 1 applies, with the following modifications and additions:

to 7.1 as a modification:

For item 5), where a heater is intended to be connected to more than one source of supply the heater shall be marked with the rated input of each circuit, except that where the input of any circuit is less than 150 W, it is sufficient to state "less than 150 W". In addition, for free output heaters, the charge acceptance, expressed in kilowatt-hours (kW h), shall be marked, separated from the input marking by an oblique stroke.