

European scheme for the classification of gas appliances according to the method of evacuation of the products of combustion (types)

ICS 91.140.40

National foreword

This Published Document reproduces verbatim CR 1749:1998.

The UK participation in its preparation was entrusted to Technical Committee GSE/-/4, Briefing committee for CEN/PC3, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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, the CR title page, pages 2 to 21 and a back cover.

The BSI copyright notice displayed throughout this document indicates when this document was last issued.

This Published Document , having been prepared under the direction of the Engineering Sector Committee , was published under the authority of the Standards Committee and comes into effect on 15 August 1999

© BSI 08-1999

First published as PD 6579:1995

ISBN 0 580 33025 7

Amendments issued since publication

Amd. No.	Date	Comments

English version

**European scheme for the classification of gas appliances
according to the method of evacuation of the products of
combustion (types)**

Modèle européen pour la classification des appareils
utilisant les combustibles gazeux selon la méthode de
l'évacuation des produits de combustion (types)

Europäisches Schema für die Einteilung von Gasgeräten
nach der Art der Abgasabführung (Typen)

This CEN Report was approved by CEN on 28 October 1998. It has been drawn up by the Technical Committee CEN/CS SUBSECTOR H99.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Contents

Foreword.....3

1 General scheme 4

1.1 Type A.....4

1.2 Type B.....5

1.3 Type C.....5

**2. Supplementary classification scheme for type A and type B
 appliances fitted with particular safety devices.....8**

**Annex A Classification according to the mode of evacuation of the products
of combustion.....9**

Annex B Special national appliance classification (types).....20

Foreword

This technical report has been prepared under the aegis of CEN/PC 3: Gas to provide guidance to CEN Technical Committees who are preparing European Standards for appliances burning combustible gases.

It gives details of a general scheme for the classification of such appliances according to the method of evacuating the products of combustion. It must be stressed that this scheme only concerns appliances that are intended to be installed within buildings. It does not apply to outdoor appliances. This form of appliance classification is widely used in the preparation of European Standards for gas appliances to identify the requirements and methods of test that are applicable to the various methods of evacuating the products of combustion. Appliances classified in this way are generally described as “types” and this description has been retained for the purposes of this general scheme.

The main purpose of the scheme is to promote harmonization in the classification of appliance types. This should ensure that there is a clear understanding of the various appliance types and will avoid confusion arising from Technical Committees describing them in different ways. CEN Technical committees are therefore requested to use this scheme in all circumstances in which it is appropriate. They should not deviate from it unless there are sound technical reasons for so doing.

In the preparation of this scheme it was noted that there were methods of evacuating products of combustion that were particular to a specific Technical Committee or to a particular gas appliance. These particular methods have not been included in the present scheme because, as indicated above, the main purpose of the scheme is to promote harmonization across Technical Committees.

However, it is intended that this scheme should be reviewed from time to time in order to consider its extension to other, possibly new, methods of evacuating products of combustion. At that time, such specific methods of evacuating products of combustion may be included at the request of the Technical Committees concerned.

The following notes are given in explanation of the classification scheme.

NOTE 1: The general scheme classifies appliances as type A, B or C according to the basic principle for the evacuation of the products of combustion. These definitions are written intentionally in very broad terms in order to cover any possible variations in the basic appliance types.

A series of subscript numbers is used in addition to these letters to identify specific variations within these basic principles.

The last subscript number of each specific variation indicates the absence or presence of an integral fan for the supply of combustion air and/or for the evacuation of the products of combustion. Where such a fan is present, the numbers 2, 3 or 4 are given. These three numbers are used solely to identify the location of this fan.

NOTE 2: Diagrams have been given in annex A showing examples of the various appliance types. However, it should be noted that diagrams for type C₆ appliances have not been included. This is because such appliances are marketed without duct systems. When installed such an appliance will have a configuration similar to one of the arrangements shown for other type C appliances.

Appliance Technical Committees have the responsibility for inclusion of requirements and methods of test in their standards to ensure that type C₆ appliances are suitable for their intended method(s) of installation.

NOTE 3: The supplementary classification scheme for type A and type B appliances has been included to clarify the identification of such appliances when fitted with different safety devices. The subscript letters "AS" (atmosphere safety) refer to an atmosphere sensing device and the subscript letters "BS" (blocked safety) refer to a clearance monitoring device, which reacts to blockage or restriction of the flue system.

In order to provide information about appliance types that are recognized in certain CEN member states, annex B has been included in which special national appliance classifications may be identified. At present, this annex identifies appliance types that are particular to Germany.

1 General scheme

The general scheme for type A, type B and type C appliances is given in 1.1, 1.2 and 1.3 respectively. Diagrams are also given in annex A to assist in the identification of the various appliance types.

1.1 Type A.

An appliance not intended for connection to a flue or to a device for evacuating the products of combustion to the outside of the room in which the appliance is installed.

Type A₁. An appliance without a fan.

Type A₂. An appliance with a fan downstream of the combustion chamber/heat exchanger.

Type A₃. An appliance with a fan upstream of the combustion chamber/heat exchanger.

1.2 Type B.

An appliance intended to be connected to a flue that evacuates the products of combustion to the outside of the room containing the appliance. The combustion air is drawn directly from the room.

Type B₁. A type B appliance incorporating a draught diverter.

Type B₁₁. A natural draught type B₁ appliance.

Type B₁₂. A type B₁ appliance designed for a natural draught flue incorporating a fan downstream of the combustion chamber/heat exchanger and upstream of the draught diverter.

Type B₁₃. A type B₁ appliance designed for a natural draught flue incorporating a fan upstream of the combustion chamber/heat exchanger.

Type B₁₄. A type B₁ appliance having an integral fan downstream of both the combustion chamber/heat exchanger and the draught diverter.

Type B₂. A type B appliance without a draught diverter.

Type B₂₁.¹ A natural draught type B₂ appliance.

Type B₂₂. A type B₂ appliance incorporating a fan downstream of the combustion chamber/heat exchanger.

Type B₂₃. A type B₂ appliance incorporating a fan upstream of the combustion chamber/heat exchanger.

1.3 Type C.

An appliance in which the combustion circuit (air supply, combustion chamber, heat exchanger and evacuation of the products of combustion) is sealed with respect to the room in which the appliance is installed.

Type C₁. A type C appliance that is designed for connection via ducts to a horizontal terminal, which at the same time admits fresh air to the burner and

¹ A type B₂₁ appliance will not generally be included in the scope of European Standards for gas appliances. However, it may apply in special circumstances e.g. gas-fired incinerators.

discharges the products of combustion to the outside through orifices that are either concentric or close enough to come under similar wind conditions.

Type C₁₁. A natural draught type C₂ appliance.

Type C₁₂. A type C₂ appliance incorporating a fan downstream of the combustion chamber/heat exchanger.

Type C₁₃. A type C₂ appliance incorporating a fan upstream of the combustion chamber/heat exchanger.

Type C₂. A type C appliance connected via two ducts to a common duct system² serving more than one appliance. This system consists of a single duct, which supplies the combustion air and evacuates the products of combustion.

Type C₂₁. A natural draught type C₂ appliance.

Type C₂₂. A type C₂ appliance incorporating a fan downstream of the combustion chamber/heat exchanger.

Type C₂₃. A type C₂ appliance incorporating a fan upstream of the combustion chamber/heat exchanger.

Type C₃. A type C appliance that is designed for connection via ducts to a vertical terminal, which at the same time admits fresh air to the burner and discharges the products of combustion to the outside through orifices that are either concentric or close enough to come under similar wind conditions.

Type C₃₁. A natural draught type C₃ appliance.

Type C₃₂. A type C₃ appliance incorporating a fan downstream of the combustion chamber/heat exchanger.

Type C₃₃. A type C₃ appliance incorporating a fan upstream of the combustion chamber/heat exchanger.

Type C₄. A type C appliance connected via two ducts to a common duct system³ serving more than one appliance. This common duct system consists of two ducts connected to a terminal, which at the same time admits fresh air to the burner and

² This common duct system is part of the construction of the building and not supplied with the appliance.

³ This common duct system is part of the construction of the building and not supplied with the appliance.