

Medical electrical equipment —

Part 2: Particular requirements for the safety of short-wave therapy equipment

**BS EN
60601-2-3:1993**

**BS 5724-2.3:
1992**

**IEC 601-2-3:
1991**

*Incorporating
Amendment No. 1 to
BS 5724-2.3:1992
(renumbers the BS
as BS EN 60601-2-3:
1993) and
implementing
Amendment No. 1 to
BS EN 60601-2-3:
1993 not published
separately*

The European Standard EN 60601-2-3:1993 with the incorporation of its amendment A1:1998 has the status of a British Standard

ICS 11.040.60

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents

AVA

Document Sharing Hub

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Health Care Standards Policy Committee (HCC/-) to Technical Committee HCC/94, upon which the following bodies were represented:

- British Society for Rheumatology
- Chartered Society of Physiotherapy
- Department of Health
- Electromedical Trade Association Limited
- Institute of Physical Sciences in Medicine (IPSM)
- Ministry of Defence
- Royal Society of Medicine

This British Standard, having been prepared under the direction of the Health Care Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 31 January 1992

© BSI 03-2000

First published November 1983
Second edition January 1992

The following BSI references relate to the work on this standard:
Committee reference HCC/94
Draft for comment 88/51885 DC

ISBN 0 580 20508 8

Amendments issued since publication

Amd. No.	Date	Comments
7879	August 1993	
10420	April 1999	Indicated by a sideline in the margin

Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
Foreword	2
Section 1. General	
Introduction	3
1 Scope and object	3
2 Terminology and definitions	4
3 General requirements	4
4 General requirements for tests	4
5 Classification	4
6 Identification, marking and documents	4
7 Power input	5
Section 2. Environmental conditions	
Section 3. Protection against electric shock hazards	
13 <i>Text deleted</i>	
14 Requirements related to classification	6
17 Separation	6
18 <i>Text deleted</i>	
19 Continuous LEAKAGE CURRENTS and PATIENT AUXILIARY CURRENTS	6
20 Dielectric strength	6
Section 4. Protection against mechanical hazards	
Section 5. Protection against hazards from unwanted or excessive radiation	
36 Electromagnetic compatibility	7
Section 6. Protection against hazards of ignition of flammable anaesthetic mixtures	
Section 7. Protection against excessive temperatures and other safety hazards	
42 Excessive temperatures	7
Section 8. Accuracy of operating data and protection against hazardous output	
50 Accuracy of operating data	7
51 Protection against hazardous output	8
Section 9. Abnormal operation and fault conditions; environmental tests	
Section 10. Constructional requirements	
56 Components and general assembly	9
Appendix AA Rationale	11
Annex ZA (normative) Other international publications quoted in this Standard with the references of relevant European publications	13
Figure 101 — R.F. dielectric strength test	9
Figure 102 — Test probe	9
Figure 103 — Power measuring device for capacitive APPLICATORS	10
Figure 104 — Example of a power measuring device for inductive applicators	10
Publication(s) referred to	Inside back cover

National foreword

This Section of BS 5724 has been prepared under the direction of the Health Care Standards Policy Committee and is identical with IEC Publication 601-2-3 “*Medical electrical equipment — Part 2: Particular requirements for the safety of short-wave therapy equipment*”, published by the International Electrotechnical Commission (IEC).

In 1993 the European Committee for Electrotechnical Standardization (CENELEC) accepted IEC 601-2-3:1991 as European Standard EN 60601-2-3:1993. As a consequence of implementing the European Standard, this British Standard is renumbered as BS EN 60601-2-3 and any reference to BS 5724-2.3 should be read as a reference to BS EN 60601-2-3.

This Part supersedes the 1983 edition of BS 5724-2.3 which is withdrawn. The main difference between this edition and the previous edition is that it is based on the 1989 edition of the General Standard BS 5724-1.

Further differences are given in the introduction.

This Particular Standard amends and supplements BS 5724-1, hereinafter referred to as the General Standard. As stated in clause 1.3 of the General Standard, the requirements of a Particular Standard take precedence over those of the General Standard.

As in the General Standard the requirements are followed by compliance tests. The numbers of the sections and clauses in this standard refer to the related sections and clauses in the General Standard. Clauses, subclauses or figures that are additional to those of the General Standard are numbered starting from 101, the additional appendix is lettered AA, and additional items aa), bb), etc. The changes from the text of the General Standard are specified by the use of the following words.

“Replacement” means that the clause, subclause or specified paragraph of the General Standard is replaced by the text of this standard.

“Amendment” means that the clause, subclause or specified paragraph of the General Standard is amended as indicated by the text of this standard.

“Addition” means that the text of the standard is additional to the requirements of the General Standard

Cross-references

International Standard	Corresponding British Standard
IEC 601-1:1977	BS 5724 <i>Medical electrical equipment</i> Part 1:1979 <i>Specification for general safety requirements</i> (Technically equivalent)
IEC 601-1:1988	BS 5724 <i>Medical electrical equipment</i> Part 1:1989 <i>General requirements for safety</i> (Identical)

The Technical Committee has reviewed the provisions of CISPR Publication 11, to which reference is made in clause 36 of the text, and has decided that they are acceptable for use in conjunction with this standard.

NOTE In BS 5724-2.3:1983, the note to clause 36 of IEC 601-2-3 was replaced by a reference to Statutory Instrument S.I. 1895/1963 which is applicable to short-wave therapy equipment. This S.I. is expected to be withdrawn in 1992 when it will be replaced by legislation arising from the Electromagnetic Compatibility Directive 89/336/EEC.

Textual errors. When adopting the text of the International Standard, the textual errors listed below were discovered. They have been marked in the text and have been reported to the IEC in a proposal to amend the text of the International Standard.

In the last line of **6.8.3** delete “Sub-clause **50.2**” and substitute “Clause **50**”.

In line 7 of clause **42**, delete “Sub-clause **50.2**” and substitute “Clause **50** of this Particular Standard”.

In line 3 of **51.2** delete “Sub-clause **50.2**” and substitute “Clause **50** of this Particular Standard”.

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 to iv, the EN title page, pages 2 to 14, 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.

Medical electrical equipment Part 2. Particular requirements for the safety of short-wave therapy equipment

(includes amendment A1:1998)
(IEC 601-2-3:1991 + A1:1998)

Appareils électromédicaux
Deuxième partie: Règles particulières de
sécurité pour appareils de thérapie à ondes
courtes
(inclut l'amendement A1:1998)
(CEI 601-2-3:1991 + A1:1998)

Medizinische elektrische Geräte
Teil 2. Besondere Festlegungen für die
Sicherheit von Kurzwellen-Therapiegeräten
(enthält Änderung A1:1998)
(IEC 601-2-3:1991 + A1:1998)

This European Standard was approved by CENELEC on 1992-12-09; its amendment A1 was approved by CENELEC on 1998-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels