

Specification for

Safety of household and similar electrical appliances

Part 2. Particular requirements

Section 2.29 Battery chargers

This European Standard EN 60335-2-29 : 1991 has the status of a
British Standard

Sécurité des appareils électrodomestiques et
analogues
Partie 2. Règles particulières
Section 2.29 Chargeurs de batteries

Sicherheit elektrischer Geräte für den
Hausgebrauch und ähnliche Zwecke
Teil 2: Besondere Anforderungen
Abschnitt 2.29 Batterieladegeräte

Cooperating organizations

The European Committee for Electrotechnical Standardization (CENELEC), under whose supervision this European Standard was prepared, comprises the National Committees of the following countries.

Austria	Italy
Belgium	Luxemburg
Denmark	Netherlands
Finland	Norway
France	Portugal
Germany	Spain
Greece	Sweden
Iceland	Switzerland
Ireland	United Kingdom

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The following BSI references relate to the work on this standard:
Committee reference LEL/161
Draft for comment 84/27502 DC

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Amendments issued since publication

Amd. No.	Date	Text affected

Amendment No. 1
published and effective from 15 October 1993
to BS EN 60335-2-29 : 1991

Safety of household and similar electrical appliances
Part 2. Particular requirements
Section 2.29 Battery chargers

NOTE. The English version of European Standard EN 60335-2-29 was implemented in the United Kingdom by the publication of BS EN 60335-2-29 : 1991. This amendment implements amendment A2 to EN 60335-2-29 : 1991.

This amendment together with the European Standard EN 60335-2-29 : 1991 has the status of a British Standard.

Revised text

National foreword

In paragraph 1, line 4, after 'chargers' insert 'including Amendment A2'.

After paragraph 4 insert the following.

'The foreword of the EN amendment makes reference to the 'date of withdrawal (dow) of conflicting national standards' as 1995-12-01. In this case the conflicting national standard is BS EN 60335-2-29 : 1991 but the 'dow' relates only to those parts of the British Standard subject to amendment No. 1. Certificates and marks will not be awarded after this date with respect to the British Standard not incorporating amendment No. 1. They will be awarded with respect only to the amended British Standard. However, such certificates and marks already awarded with respect to the British Standard not incorporating amendment No. 1 may continue to apply for production until 2000-12-01.'

AMD 7964/October 1993

EN title page and foreword

Insert the attached EN title page (foreword on reverse).

AMD 7964/October 1993

Text of EN 60335-2-29

Amend the text of European Standard EN 60335-2-29 in accordance with the details given on the attached pages.

AMD 7964/October 1993

UDC 64.06-83:621.354.32:614.8

Descriptors: Household electrical appliances, battery chargers, safety requirements, protection against electric shock, fire protection, protection against mechanical hazard

Amendment A2 to the English version of EN 60335-2-29

Safety of household and similar electrical appliances Part 2: Particular requirements for battery chargers

(Amendment 2 : 1991 to IEC 335-2-29 : 1987, modified)

Sécurité des appareils électrodomestiques
et analogues
Deuxième partie: Règles particulières pour les
chargeurs de batteries
(Amendment 2 : 1991 à la CEI 335-2-29 : 1987,
modifié)

Sicherheit elektrischer Geräte für den
Hausgebrauch und ähnliche Zwecke
Teil 2: Besondere Anforderungen für
Batterieladegeräte
(Änderung 2 : 1991 zu IEC 335-2-29 : 1987,
modifiziert)

This amendment A2 modifies the European Standard EN 60335-2-29 : 1991. It was approved by CENELEC on 9 March 1993. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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

Foreword

The proposal to endorse amendment 2 : 1991 to IEC 335-2-29 : 1987, document CLC/TC 61 (SEC) 800, was circulated under the CENELEC enquiry procedure in August 1991. This proposal was discussed during the Valadares meeting in April 1992, when it was decided to submit a draft for an amendment to EN 60335-2-29 : 1991 to the voting procedure.

This draft was circulated as prAA in August 1992 and was ratified by CENELEC as amendment A2 on 9 March 1993.

There is no amendment A1 to EN 60335-2-29.

This amendment has been prepared by the secretariat of CENELEC Technical Committee TC 61.

The following dates are applicable:

- latest date of publication of an identical national standard (dop) 1993-12-01
- date of withdrawal of conflicting national standards (dow) 1995-12-01

For products which have complied with EN 60335-2-29 : 1991 before 1995-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2000-12-01.

EN 60335-2-29 including this amendment has to be used in conjunction with EN 60335-1 : 1988, including its amendments A2 : 1988, A5 : 1989, A6 : 1989, A51 : 1991, A52 : 1992, A53 : 1992, A54 : 1992 and A55 : 1993.

There are no special national conditions (snc) causing a deviation from this amendment.

There are no national deviations from this amendment.

Other publication quoted in this amendment:

HD 323.2.6 S2 : 1988 Basic environmental testing
procedures Part 2: Tests –
Test Fc and guidance:
Vibration (sinusoidal)

Common modification

21. Mechanical strength

21.102 Replace 'IEC 68-2-6' by 'HD 323.2.6 S2'

1 Scope

1.1 *Add to the first paragraph:*

It also applies to battery chargers for building into caravans or similar vehicles.

Replace the first dashed item by:

- battery chargers for building-in except those for building-in to caravans and similar vehicles.

2 Definitions

Add the following definition:

2.2.105 d.c. distribution board: A panel containing circuits for distributing d.c. power to a number of socket-outlets or terminals.

7 Marking

7.1 *Replace the fourth dashed item by:*

- the rated current of the battery charger output circuit fuse-link, in amperes, unless it is not interchangeable with a fuse-link having a higher rated current;
- the rated current, in amperes, of protective devices incorporated in a d.c. distribution board.

Add:

d.c. distribution boards shall be marked with the maximum output current, in amperes, for each output circuit.

d.c. distribution boards shall be marked with the types of any additional power supply which may be connected.

7.12 Add:

The instruction sheet for battery chargers intended for building into caravans shall also state that the connection from the supply mains to the battery charger is to be in accordance with the national wiring rules.

Additional subclause:

7.101 The instruction sheet provided with chargers for lead-acid batteries shall state that during charging the battery must be placed in a well ventilated area.

19 Abnormal operation

19.1 Add:

For combined battery chargers and d.c. distribution boards intended for building into caravans, compliance is also checked by the test of 19.103.

Add:

19.103 The combined battery charger and d.c. distribution board is operated under normal load until steady conditions are established. The load is then increased so that the output current is raised by 10 %. When steady conditions are established, the load is increased as before. The test is repeated until the protective device operates.

21 Mechanical strength

Add:

21.102 Battery chargers intended for building into caravans shall withstand vibrations that may be expected.

Compliance is checked by subjecting the battery charger to the vibration test specified in IEC 68-2-6. The test conditions are:

- the battery charger is built-in. The enclosure is made from plywood approximately 20 mm thick with internal dimensions the minimum recommended in the manufacturer's instructions;*
- the enclosure is strapped to the vibration generator with the battery charger in its normal position of use;*
- the direction of vibration is vertical;*
- the amplitude of vibration is 0,35 mm;*
- the sweep frequency range is 10 Hz to 55 Hz to 10 Hz;*
- the sweep rate is one octave per min;*
- the duration of the test is 30 min.*

After the test, the battery charger shall show no damage within the meaning of this standard; in particular, connections shall not have worked loose.

22 Construction

Additional subclauses:

22.101 Each d.c. supply circuit from a d.c. distribution board shall incorporate an over-load protective device.

Compliance is checked by inspection.

22.102 Battery chargers intended for building into caravans shall be provided with adequate means for fixing; keyhole slots alone shall not be used.

Compliance is checked by inspection.

28 Screws and connections

Replace this clause by:

This clause of Part 1 is applicable except as follows:

28.5 Addition:

The input and output terminals of battery chargers intended for building into caravans shall be secured against loosening.