

Electric vehicle conductive charging system —

Part 22: AC electric vehicle charging station

The European Standard EN 61851-22:2002 has the status of a
British Standard

ICS 43.120

National foreword

This British Standard is the official English language version of EN 61851-22:2002. It is identical with IEC 61851-22:2001.

The UK participation in its preparation was entrusted to Technical Committee PEL/69, Electric vehicles, 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;
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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.

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This British Standard, having been prepared under the direction of the Electrotechnical Sector Policy and Strategy Committee, was published under the authority of the Standards Policy and Strategy Committee on 20 May 2002

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English version

**Electric vehicle conductive charging system
Part 22: AC electric vehicle charging station
(IEC 61851-22:2001)**

Système de charge conductive
pour véhicules électriques
Partie 22: Borne de charge conductive
en courant alternatif pour véhicules
électriques
(CEI 61851-22:2001)

Konduktive Ladesysteme
für Elektrofahrzeuge
Teil 22: Wechselstrom-Ladestation
für Elektrofahrzeuge
(IEC 61851-22:2001)

This European Standard was approved by CENELEC on 2001-12-04. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
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Foreword

The text of document 69/129/FDIS, future edition 1 of IEC 61851-22, prepared by IEC TC 69, Electric road vehicles and electric industrial trucks, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61851-22 on 2001-12-04.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2002-10-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2005-01-01

This European Standard shall be read in conjunction with EN 61851-1.

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61851-22:2001 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60309-1	NOTE	Harmonized as EN 60309-1:1999 (not modified).
IEC 60364-5-54	NOTE	Harmonized as HD 384.5.54 S1:1988 (modified).
CISPR 11	NOTE	Harmonized as EN 55011:1998 (modified).
CISPR 14	NOTE	Harmonized as EN 55014 Series (not modified).

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ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM –

Part 22: AC electric vehicle charging station

1 Scope

This part of IEC 61851, together with part 1, gives the requirements for a.c. electric vehicle charging stations for conductive connection to an electric vehicle, with a.c. supply voltages according to IEC 60038 up to 690 V.

This standard does not cover all safety aspects related to maintenance.

The scope of this part of IEC 61851 does not cover box type assemblies with socket-outlets, installed for the purpose of delivering energy to the vehicle, which have no charging control functions.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61851. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61851 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

IEC 60038:1983, *IEC standard voltages*

IEC 60068-2-1:1990, *Environmental testing – Part 2: Tests – Tests A: Cold*

IEC 60068-2-2:1974, *Environmental testing – Part 2: Tests – Tests B: Dry heat*

IEC 60068-2-3:1969, *Environmental testing – Part 2: Tests – Test Ca: Damp heat, steady state*

IEC 60068-2-5:1975, *Environmental testing – Part 2: Tests – Test Sa: Simulated solar radiation at ground level*

IEC 60068-2-14:1984, *Environmental testing – Part 2: Tests – Test N: Change of temperature*

IEC 60068-2-30:1980, *Environmental testing – Part 2: Tests – Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle)*

IEC 60068-2-52:1996, *Environmental testing – Part 2: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution)*

IEC 60068-2-75:1997, *Environmental testing – Part 2: Tests – Test Eh: Hammer tests*

IEC 60364-4-43:1977, *Electrical installations of buildings – Part 4: Protection for safety – Chapter 43: Protection against overcurrent*

IEC 60364-4-443:1995, *Electrical installations of buildings – Part 4: Protection for safety – Chapter 44: Protection against overvoltages – Section 443: Protection against overvoltages of atmospheric origin or due to switching*
Amendment 1 (1998) ¹⁾

IEC 60439-1:1999 *Low-voltage switchgear and controlgear assemblies – Part 1: Type-tested and partially type-tested assemblies*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 60664-1:1992, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 60950:1999, *Safety of information technology equipment*

IEC 61000-2-2:1990, *Electromagnetic compatibility (EMC) – Part 2: Environment – Compatibility levels for low-frequency conducted disturbances and signalling in public low-voltage power supply systems*

IEC 61000-3-2:2000, *Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)*

IEC 61000-4-1:2000, *Electromagnetic compatibility (EMC) – Part 4-1: Testing and measurement techniques – Overview of IEC 61000-4 series*

IEC 61000-4-2:1995, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Section 2: Electrostatic discharge immunity test – Basic EMC publication* ²⁾
Amendment 1 (1998)
Amendment 2 (2000)

IEC 61000-4-3:1995, *Electromagnetic compatibility (EMC) – Part 4: Testing and measurement techniques – Section 3: Radiated, radio-frequency, electromagnetic field immunity test* ³⁾
Amendment 1 (1998)
Amendment 2 (2000)

IEC 61000-4-4:1995, *Electromagnetic compatibility (EMC) – Part 4: Testing and measurement techniques – Section 4: Electrical fast transient/burst immunity test – Basic EMC publication*
Amendment 1 (2000)

IEC 61000-4-5:1995, *Electromagnetic compatibility (EMC) – Part 4: Testing and measurement techniques – Section 5: Surge immunity test*

¹⁾ There exists a consolidated edition 2.1 (1999) that includes IEC 60364-4-443 (1995) and its amendment 1 (1998).

²⁾ There exists a consolidated edition 1.1 (1999) that includes IEC 61000-4-2 (1995) and its amendment 1 (1998).

³⁾ There exists a consolidated edition 1.1 (1998) that includes IEC 61000-4-3 (1995) and its amendment 1 (1998).