

Secondary cells and batteries for solar photovoltaic energy systems — General requirements and methods of test

The European Standard EN 61427:2001 has the status of a British Standard

ICS 29.220.20; 27.160

National foreword

This British Standard is the official English language version of EN 61427:2001. It is identical with IEC 61427:1999.

The UK participation in its preparation was entrusted to Technical Committee PEL/21, Secondary cells and batteries, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible 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.

From 1 January 1997, all IEC publications have the number 60000 added to the old number. For instance, IEC 27-1 has been renumbered as IEC 60027-1. For a period of time during the change over from one numbering system to the other, publications may contain identifiers from both systems.

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, was published under the authority of the Standards Policy and Strategy Committee on 13 March 2002

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English version

**Secondary cells and batteries
for solar photovoltaic energy systems -
General requirements and methods of test
(IEC 61427:1999)**

Accumulateurs pour systèmes
de conversion photovoltaïque
de l'énergie solaire -
Prescriptions générales et méthodes
d'essai
(CEI 61427:1999)

Wiederaufladbare Batterien für
photovoltaische Solarenergiesysteme -
Allgemeine Anforderungen und
Prüfverfahren
(IEC 61427:1999)

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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.

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CENELEC

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

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Foreword

The text of the International Standard IEC 61427:1999, prepared by IEC TC 21, Secondary cells and batteries, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 61427 on 2000-11-01 without any modification.

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) 2002-05-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2003-10-01

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 61427:1999 was approved by CENELEC as a European Standard without any modification.

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SECONDARY CELLS AND BATTERIES FOR SOLAR PHOTOVOLTAIC ENERGY SYSTEMS – GENERAL REQUIREMENTS AND METHODS OF TEST

1 Scope

This International Standard gives general information relating to the requirements of the secondary batteries used in photovoltaic (PV) solar energy systems and to the typical methods of test used for the verification of battery performances.

This International Standard does not include specific information relating to battery sizing, method of charge or PV system design.

NOTE This standard is applicable to lead-acid and nickel-cadmium cells and batteries. It is intended to amend this standard to include other electrochemical systems when they become available.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard 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 IEC and ISO maintain registers of currently valid International Standards.

IEV 60050(486), *International Electrotechnical Vocabulary (IEV) – Chapter 486: Secondary cells and batteries*

IEC 60051-2, *Direct acting indicating analogue electrical measuring instruments and their accessories – Part 2: Special requirements for ammeters and voltmeters*

IEC 60359, *Expression of the performance of electrical and electronic measuring equipment*

IEC 60485, *Digital electronic d.c. voltmeters and d.c. electronic analogue-to-digital converters*

IEC 60622, *Sealed nickel-cadmium prismatic rechargeable single cells*

IEC 60623, *Vented nickel-cadmium prismatic rechargeable single cells*

IEC 60721-1, *Classification of environmental conditions – Part 1: Environmental parameters and their severities*

IEC 60896-1, *Stationary lead-acid batteries – General requirements and methods of test – Part 1: Vented types*

IEC 60896-2, *Stationary lead-acid batteries – General requirements and methods of test – Part 2: Valve-regulated types*