NSAI
Standards

Irish Standard
I.S. EN 61427-2:2015

Secondary cells and batteries for renewable energy storage - General requirements and methods of test - Part 2: On-grid applications

I.S. EN 61427-2:2015

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN 61427-2:2015 is the adopted Irish version of the European Document EN 61427-2:2015, Secondary cells and batteries for renewable energy storage - General requirements and methods of test - Part 2: On-grid applications

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61427-2

November 2015

ICS 29.220.20

English Version

Secondary cells and batteries for renewable energy storage - General requirements and methods of test - Part 2: On-grid applications (IEC 61427-2:2015)

Accumulateurs pour le stockage de l'énergie renouvelable - Exigences générales et méthodes d'essais - Partie 2: Applications en réseaux (IEC 61427-2:2015)

Wiederaufladbare Zellen und Batterien für die Speicherung erneuerbarer Energien - Allgemeine Anforderungen und Prüfverfahren - Teil 2: Netzgekoppelte Anwendungen (IEC 61427-2:2015)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 61427-2:2015 E

European foreword

The text of document 21/862/FDIS, future edition 1 of IEC 61427-2, prepared by IEC/TC 21 "Secondary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61427-2:2015.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2016-07-02
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-10-02

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The text of the International Standard IEC 61427-2:2015 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 60623	NOTE	Harmonized as EN 60623.
IEC 60730-1	NOTE	Harmonized as EN 60730-1.
IEC 60812	NOTE	Harmonized as EN 60812.
IEC 60896-11	NOTE	Harmonized as EN 60896-11.
IEC 60896-21	NOTE	Harmonized as EN 60896-21.
IEC 60896-22	NOTE	Harmonized as EN 60896-22.
IEC 61025	NOTE	Harmonized as EN 61025.
IEC 61427-1	NOTE	Harmonized as EN 61427-1.
IEC 61508	NOTE	Harmonized in EN 61508 series.
IEC 61508-7	NOTE	Harmonized as EN 61508-7.
IEC 62133	NOTE	Harmonized as EN 62133.
IEC 62259	NOTE	Harmonized as EN 62259.

IEC 62485-3	NOTE	Harmonized as EN 62485-3.
IEC 62619 [1)]	NOTE	Harmonized as EN 62619 [1)].
IEC 62620	NOTE	Harmonized as EN 62620.
IEC 62675	NOTE	Harmonized as EN 62675.

1) At draft stage..

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IEC 61427-2

Edition 1.0 2015-08

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Secondary cells and batteries for renewable energy storage – General requirements and methods of test – Part 2: On-grid applications

Accumulateurs pour le stockage de l'énergie renouvelable – Exigences générales et méthodes d'essais – Partie 2: Applications en réseau

IEC 61427-2:2015-08(en-fr)

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INTERNATIONAL STANDARD

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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SECONDARY CELLS AND BATTERIES FOR RENEWABLE ENERGY STORAGE – GENERAL REQUIREMENTS AND METHODS OF TEST –

Part 2: On-grid applications

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61427-2 has been prepared by IEC technical committee 21: Secondary cells and batteries.

A list of all parts in the IEC 61427 series, published under the general title *Secondary cells and batteries for renewable energy storage – General requirements and methods of test*, can be found on the IEC website.

The text of this standard is based on the following documents:

FDIS	Report on voting
21/862/FDIS	21/863/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

SECONDARY CELLS AND BATTERIES FOR RENEWABLE ENERGY STORAGE – GENERAL REQUIREMENTS AND METHODS OF TEST

Part 2: On-grid applications

1 Scope

This part of IEC 61427 relates to secondary batteries used in on-grid Electrical Energy Storage (EES) applications and provides the associated methods of test for the verification of their endurance, properties and electrical performance in such applications. The test methods are essentially battery chemistry neutral, i.e. applicable to all secondary battery types.

On-grid applications are characterized by the fact that batteries are connected, via power conversion devices, to a regional or nation- or continent-wide electricity grid and act as instantaneous energy sources and sinks to stabilize the grid's performance when randomly major amounts of electrical energy from renewable energy sources are fed into it.

Related power conversion and interface equipment is not covered by this part of IEC 61427.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

None.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
accuracy
<of a measuring instrument>

quality which characterizes the ability of a measuring instrument to provide an indicated value close to a true value of the quantity to be measured

Note 1 to entry: This term is used in the "true" value approach.

Note 2 to entry: Accuracy is better when the indicated value is closer to the corresponding true value.

[SOURCE: IEC 60050-311:2001, 311-06-08]

3.2
accuracy class
category of measuring instruments, all of which are intended to comply with a set of specifications regarding uncertainty

[SOURCE: IEC 60050-311:2001, 311-06-09]