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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

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EUROPEAN STANDARD

**EN 61427-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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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Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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

**EN 61427-2:2015****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
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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.
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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 <sup>1)</sup>	NOTE	Harmonized as EN 62619 <sup>1)</sup> .
IEC 62620	NOTE	Harmonized as EN 62620.
IEC 62675	NOTE	Harmonized as EN 62675.

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1) At draft stage..

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Edition 1.0 2015-08

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**

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**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**





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**IEC 61427-2**

Edition 1.0 2015-08

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**

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**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**

INTERNATIONAL  
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## 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**

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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.

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- 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]



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