



SLOVENSKI STANDARD
SIST EN IEC 62282-8-201:2024

01-oktober-2024

Tehnologija gorivnih celic - 8-201. del: Sistemi za shranjevanje energije, ki uporabljajo module gorivnih celic v obrnjeni smeri - Preskusni postopki za delovanje elektroenergetskih sistemov (IEC 62282-8-201:2024)

Fuel cell technologies - Part 8-201: Energy storage systems using fuel cell modules in reverse mode - Test procedures for the performance of power-to-power systems (IEC 62282-8-201:2024)

Brennstoffzellentechnologien - Teil 8-201: Energiespeichersysteme mit Brennstoffzellenmodulen im reversiblen Betrieb - Prüfverfahren zum Leistungsverhalten von Power-to-Power-Systemen (IEC 62282-8-201:2024)

Technologies des piles à combustible - Partie 8-201: Systèmes de stockage de l'énergie à partir de modules de piles à combustible réversibles - Procédures d'essai pour la performance des systèmes de conversion électrochimiques électriques à électriques (IEC 62282-8-201:2024)

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Fuel cell technologies - Part 8-201: Energy storage systems
using fuel cell modules in reverse mode - Test procedures for
the performance of power-to-power systems
(IEC 62282-8-201:2024)

Technologies des piles à combustible - Partie 8-201:
Systèmes de stockage de l'énergie à partir de modules de
piles à combustible réversibles - Procédures d'essai pour la
performance des systèmes de conversion électrochimiques
électriques à électriques
(IEC 62282-8-201:2024)

Brennstoffzellentechnologien - Teil 8-201:
Energiespeichersysteme mit Brennstoffzellenmodulen im
reversiblen Betrieb - Prüfverfahren zum Leistungsverhalten
von Power-to-Power-Systemen
(IEC 62282-8-201:2024)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62282-8-201:2024 (E)**European foreword**

The text of document 105/1034/FDIS, future edition 2 of IEC 62282-8-201, prepared by IEC/TC 105 "Fuel cell technologies" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62282-8-201:2024.

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- latest date by which the national standards conflicting with the (dow) 2027-08-14 document have to be withdrawn

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

IEC 60079-0	NOTE	Approved as EN IEC 60079-0
IEC 60079-10-1	NOTE	Approved as EN IEC 60079-10-1
IEC 60079-29-2	NOTE	Approved as EN 60079-29-2
IEC 60364 series	NOTE	Approved as HD 60364 series
IEC 61000-4-7	NOTE	Approved as EN 61000-4-7
IEC 61000-4-13	NOTE	Approved as EN 61000-4-13
IEC 61960-3	NOTE	Approved as EN 61960-3
IEC 61987-1	NOTE	Approved as EN 61987-1
IEC 62282-2-100	NOTE	Approved as EN IEC 62282-2-100
IEC 62282-3-100	NOTE	Approved as EN IEC 62282-3-100
IEC 62282-3-300	NOTE	Approved as EN 62282-3-300
IEC 62933-1:2018	NOTE	Approved as EN IEC 62933-1:2018 (not modified)
IEC 62984-2:2020	NOTE	Approved as EN IEC 62984-2:2020 (not modified)

ISO 4064-1	NOTE	Approved as EN ISO 4064-1
ISO 4064-2	NOTE	Approved as EN ISO 4064-2
ISO 7888	NOTE	Approved as EN 27888
ISO 15839	NOTE	Approved as EN ISO 15839

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61427-1	-	Secondary cells and batteries for renewable energy storage - General requirements and methods of test - Part 1: Photovoltaic off-grid application	EN 61427-1	-
IEC 61427-2	-	Secondary cells and batteries for renewable energy storage - General requirements and methods of test - Part 2: On-grid applications	EN 61427-2	-
IEC 62282-3-200	-	Fuel cell technologies - Part 3-200: Stationary fuel cell power systems - Performance test methods	EN 62282-3-200	-
IEC 62282-3-201	-	Fuel cell technologies - Part 3-201: Stationary fuel cell power systems - Performance test methods for small fuel cell power systems	EN 62282-3-201	-
IEC 62282-8-101	-	Fuel cell technologies - Part 8-101: Energy storage systems using fuel cell modules in reverse mode - Test procedures for the performance of solid oxide single cells and stacks, including reversible operation	EN IEC 62282-8-101	-
IEC 62282-8-102	-	Fuel cell technologies - Part 8-102: Energy storage systems using fuel cell modules in reverse mode - Test procedures for the performance of single cells and stacks with proton exchange membrane, including reversible operation	EN IEC 62282-8-102	-
IEC 62933-2-1	2017	Electrical energy storage (EES) systems - Part 2-1: Unit parameters and testing methods - General specification	EN IEC 62933-2-1	2018
ISO/IEC Guide 98-3	-	Uncertainty of measurement - Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)	-	-

EN IEC 62282-8-201:2024 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 3746	-	Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Survey method using an enveloping measurement surface over a reflecting plane	EN ISO 3746	-
ISO 9614-1	-	Acoustics - Determination of sound power levels of noise sources using sound intensity - Part 1: Measurement at discrete points	EN ISO 9614-1	-
ISO 11204	-	Acoustics - Noise emitted by machinery and equipment - Determination of emission sound pressure levels at a work station and at other specified positions applying accurate environmental corrections	EN ISO 11204	-
ISO 16111	-	Transportable gas storage devices - Hydrogen absorbed in reversible metal hydride	-	-
ISO 19880-1	-	Gaseous hydrogen - Fuelling stations - Part 1: General requirements	-	-
ISO 19881	-	Gaseous hydrogen - Land vehicle fuel containers	-	-
ISO 19882	-	Gaseous hydrogen - Thermally activated pressure relief devices for compressed hydrogen vehicle fuel containers	-	-
ISO 22734	2019	Hydrogen generators using water electrolysis - Industrial, commercial, and residential applications	-	-

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NORME INTERNATIONALE



Fuel cell technologies –
Part 8-201: Energy storage systems using fuel cell modules in reverse mode –
Test procedures for the performance of power-to-power systems

Technologies des piles à combustible –
Partie 8-201: Systèmes de stockage de l'énergie à partir de modules de piles à
combustible réversibles – Procédures d'essai pour la performance des
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FUEL CELL TECHNOLOGIES –

Part 8-201: Energy storage systems using fuel cell modules in reverse mode – Test procedures for the performance of power-to-power systems

FOREWORD

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IEC 62282-8-201 has been prepared by IEC technical committee 105: Fuel cell technologies. It is an International Standard.

This second edition cancels and replaces the first edition published in 2020. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) consideration of systems connected to hydrogen supply infrastructure (hydrogen grids, vessels, caverns or pipelines);
- b) hydrogen input and output rate is added in the system parameters (5.10);
- c) electric energy storage capacity test is revised (6.2);