Kütuseelementide kasutamistehnika. Osa 3-3: Kohtkindlad kütuseelement-energiaallikad. Paigaldamine

Fuel cell technologies - Part 3-3: Stationary fuel cell power systems - Installation

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 62282-3-3:2008 sisaldab Euroopa standardi EN 62282-3-3:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 62282-3-3:2008 consists of the English text of the European standard EN 62282-3-3:2008.
Standard on kinnitatud Eesti Standardikeskuse 24.03.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 24.03.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 22.02.2008.	Date of Availability of the European standard text 22.02.2008.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 27.070

Võtmesõnad:

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English version

Fuel cell technologies - Part 3-3: Stationary fuel cell power systems - Installation

(IEC 62282-3-3:2007)

Technologies des piles à combustible - Partie 3-3: Systèmes à piles à combustible stationnaires - Installation
(CEI 62282-3-3:2007)

Brennstoffzellentechnologien - Teil 3-3: Stationäre Brennstoffzellen-Energiesysteme - Errichtung
(IEC 62282-3-3:2007)

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Foreword

The text of document 105/152/FDIS, future edition 1 of IEC 62282-3-3, prepared by IEC TC 105, Fuel cell technologies, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62282-3-3 on 2008-02-01.

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)	2008-11-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2011-02-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 62282-3-3:2007 was approved by CENELEC as a European Standard without any modification.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60079-10	– [1)]	Electrical apparatus for explosive gas atmospheres - Part 10: Classification of hazardous areas	EN 60079-10	2003 [2)]
IEC 61511-3	– [1)]	Functional safety - Safety instrumented systems for the process industry sector - Part 3: Guidance for the determination of the required safety integrity levels	EN 61511-3	2004 [2)]
IEC 61779-4 (mod)	– [1)]	Electrical apparatus for the detection and measurement of flammable gases - Part 4: Performance requirements for group II apparatus indicating a volume fraction up to 100 % lower explosive limit	EN 61779-4 [3)]	2000 [2)]
IEC 61779-6	– [1)]	Electrical apparatus for the detection and measurement of flammable gases - Part 6: Guide for the selection, installation, use and maintenance of apparatus for the detection and measurement of flammable gases	–	–
IEC 61882	– [1)]	Hazard and operability studies (HAZOP studies) - Application guide	–	–
IEC 62282-3-1	– [1)]	Fuel cell technologies - Part 3-1: Stationary fuel cell power systems - Safety	EN 62282-3-1	2007 [2)]
ISO 14121 [4)]	– [1)]	Safety of machinery - Principles of risk assessment	–	–

[1)] Undated reference.

[2)] Valid edition at date of issue.

[3)] EN 61779-4 is superseded by EN 60079-29-1:2007, which is based on IEC 60079-29-1:2007, modified.

[4)] ISO 14121 is superseded by ISO 14121-1:2007, which is harmonized as EN ISO 14121-1:2007.

CONTENTS

INTRODUCTION

This International Standard covers the installation of stationary fuel cell power systems that are built in compliance with IEC 62282-3-1.

The requirements of this standard are not intended to constrain innovation. Installations employing materials and/or methods differing from those detailed in this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be considered to comply with the standard.

FUEL CELL TECHNOLOGIES –

Part 3-3: Stationary fuel cell power systems – Installation

1 Scope

This part of IEC 62282 provides minimum safety requirements for the installation of indoor and outdoor stationary fuel cell power systems in compliance with IEC 62282-3-1 and applies to the installation of the mentioned systems

– intended for electrical connection to mains directly or with a transfer switch,
– intended for a stand-alone power distribution system,
– intended to provide AC or DC power,
– with or without the ability to recover useful heat.

This part of IEC 62282 does not cover:

– fuel supply and/or fuel storage systems,
– power connector to the grid,
– portable fuel cell power systems,
– propulsion fuel cell power systems,
– APU (auxiliary power units) applications.

A typical stationary fuel cell power system installation is represented in Figure 1.

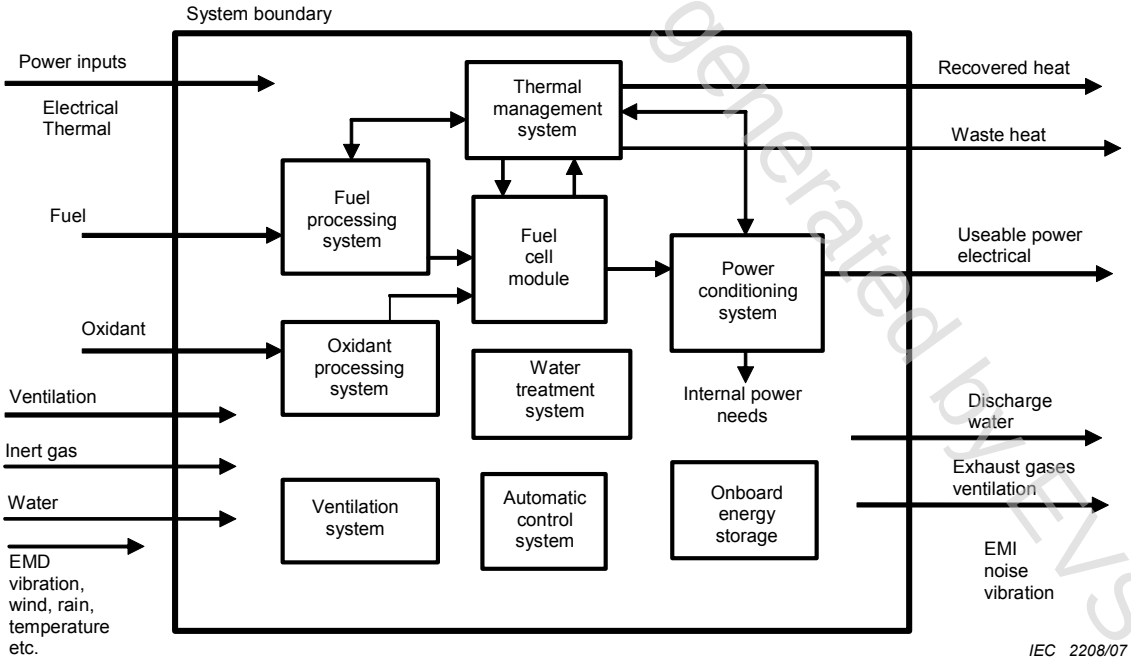

Figure 1 – Fuel cell power system

Fuel cell power systems are divided into two categories:

– Small systems.

– Large systems.

Definitions are given in Clause 3.

2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60079-10, *Electrical apparatus for explosive gas atmospheres – Part 10: Classification of hazardous areas*

IEC 61511-3, *Functional safety – Safety instrumented systems for the process industry sector – Part 3: Guidance for the determination of the required safety integrity levels*

IEC 61779-4: *Electrical apparatus for the detection and measurement of flammable gases – Part 4: Performance requirements for group II apparatus indicating up to 100 % lower explosive limit*

IEC 61779-6: *Electrical apparatus for the detection and measurement of flammable gases – Part 6: Guide for the selection, installation, use and maintenance of apparatus for the detection and measurement of flammable gases*

IEC 61882, *Hazard and operability studies (HAZOP studies) – Application guide*

IEC 62282-3-1, *Fuel cell technologies – Part 3-1: Stationary fuel cell power systems – Safety*

ISO 14121, *Safety of machinery – Principles of risk assessment*