

Fuel cell technologies —

Part 1: Terminology

ICS 27.070

National foreword

This Draft for Development reproduces verbatim IEC 62282-1:2005.

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It is being issued in the Draft for Development series of publications and is of a provisional nature because the technology is still at a development stage. It should be applied on this provisional basis, so that information and experience of its practical application may be obtained.

A PAS is a Technical Specification not fulfilling the requirements for a standard, but made available to the public and established in an organization operating under a given procedure.

Comments arising from the use of this Draft for Development are requested so that UK experience can be reported to the international organization responsible for the Technical Specification. A review of this publication will be initiated not later than 3 years after its publication by the international organization so that a decision can be taken on its status at the end of its 3-year life. Notification of the start of the review period will be made in an announcement in the appropriate issue of *Update Standards*.

According to the replies received by the end of the review period, the responsible BSI Committee will decide whether to support the conversion into an international standard, to extend the life of the Technical Specification for another 3 years or to withdraw it. Comments should be sent in writing to the Secretary of BSI Technical Committee GEL/105, Fuel Cell Technologies, at British Standards House, 389 Chiswick High Road, London W4 4AL, giving the document reference and clause number and proposing, where possible, an appropriate revision of the text.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international publications referred to in this document may be found in the BSI Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

Summary of pages

This document comprises a front cover, an inside front cover, the IEC title page, pages 2 to 15 and a back cover.

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**Partie 1:
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Fuel cell technologies –

**Part 1:
Terminology**



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FUEL CELL TECHNOLOGIES –

Part 1: Terminology

1 Scope and object

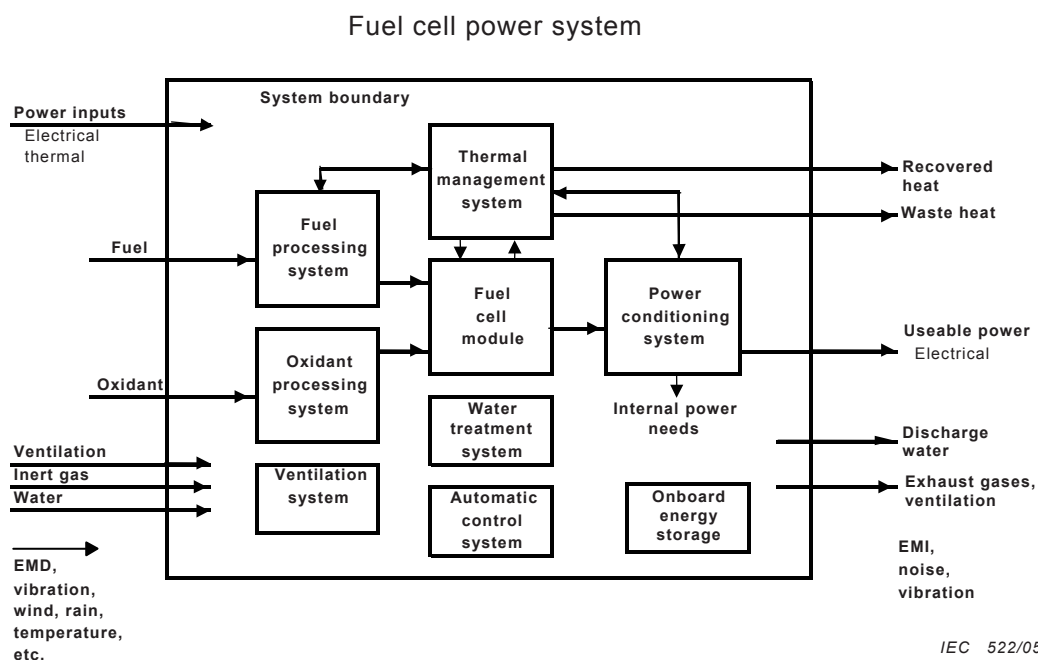
This part of IEC 62282 provides uniform terminology in the forms of diagrams, definitions and equations related to fuel cell technologies in all applications including but not limited to stationary power, transportation, portable power and micro power applications.

Not found here are words and phrases which can be found in standard dictionaries, engineering references or the IEC 60050 series.

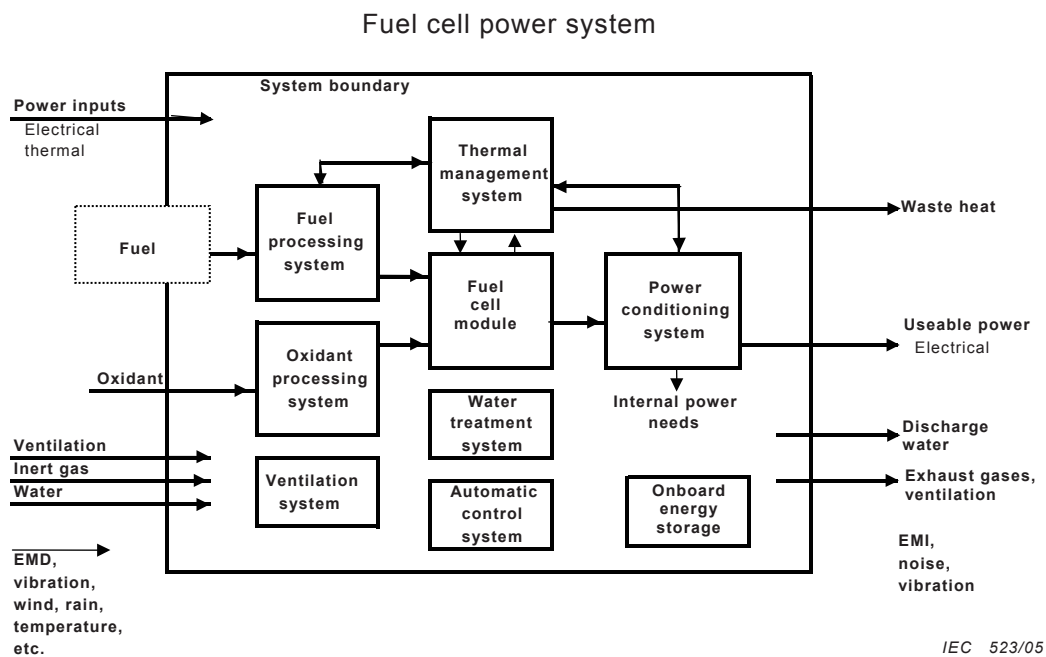
This part of IEC 62282 is intended as a resource for the Working Groups and users of the IEC TC 105 series of fuel cell standards.

2 Diagrams of generalized fuel cell systems

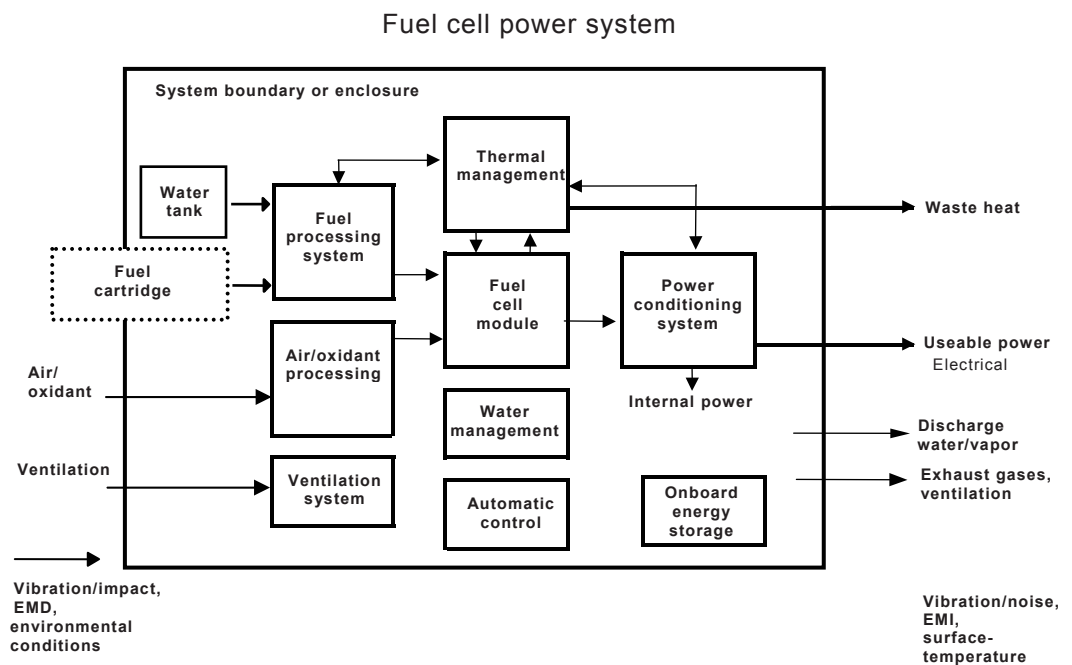
2.1 Stationary fuel cell power systems



2.2 Portable fuel cell power systems



2.3 Micro fuel cell power systems



3 Terms and definitions

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

3.1

acceptance test

contractual test to prove to the customer that the item meets certain conditions of its specifications

[IEV 151-16-23]

3.2

Alkaline Fuel Cell

AFC

fuel cell that employs aqueous solution of alkali as the electrolyte

NOTE Generally, aqueous solution of potassium hydroxide is used as the electrolyte.

3.3

ambient temperature

temperature of the medium surrounding a device, equipment or installation which may affect the performance of the device, equipment or installation

3.4

anode

fuel electrode at which fuel oxidation takes place by the removal of electrons from the fuel to the electric load, followed by the release of oxidized fuel products

3.5

automatic control system

assembly of sensors, actuators, valves, switches and logic components (including process controllers) that maintains the *fuel cell power system* parameters within the manufacturers specified limits without manual intervention

3.6

background noise level

sound pressure level, expressed in decibels dB(A), generated by the surroundings of a plant and measured at a specified measurement point when the plant is in the shutdown state

3.7

cathode

air/oxidant electrode at which oxidant reduction takes place by the donation of electrons from the electric load to the oxidant, followed by the release of reduced oxidant products

3.8

cold state

condition of a *fuel cell power system* at ambient temperature with no power input or output

[IEC 62282-3-2, 3.1.10]

3.9

discharge water

water discarded from the *fuel cell power system* including *waste water* and condensate