

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fuel cell technologies –
Part 6-401: Micro fuel cell power systems – Power and data interchangeability –
Performance test methods for laptop computer**

**Technologies des piles à combustible –
Partie 6-401: Systèmes à micropiles à combustible – Interchangeabilité de la
puissance et des données – Méthodes d'essai des performances pour
ordinateur portable**



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INTERNATIONAL
ELECTROTECHNICAL
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INTERNATIONALE

ICS 27.070

ISBN 978-2-8327-0305-2

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FUEL CELL TECHNOLOGIES –

**Part 6-401: Micro fuel cell power systems –
Power and data interchangeability –
Performance test methods for laptop computer**

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IEC 62282-6-401 has been prepared by IEC technical committee 105: Fuel cell technologies. It is an International Standard.

The text of this International Standard is based on the following documents:

| Draft | Report on voting |
|---------------|------------------|
| 105/1095/FDIS | 105/1102/RVD |

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 62282 series, published under the general title *Full cell technologies*, can be found on the IEC website.

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

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FUEL CELL TECHNOLOGIES –

Part 6-401: Micro fuel cell power systems – Power and data interchangeability – Performance test methods for laptop computer

1 Scope

This part of IEC 62282 covers the requirements for the performance test methods of a micro fuel cell/battery power system, consisting of a fuel cell system with secondary battery for laptop computers.

For this purpose, this document covers electrical performance tests for the fuel cell/battery hybrid system. This document also covers performance test methods which focus on the power and data interchangeability of the micro fuel cell power system and laptop computer and other characteristics for balance of plant (BOP) installed for laptop computer applications with a fuel cell/battery hybrid system. This document applies to gaseous hydrogen-fuelled fuel cell power, liquid hydrogen-fuelled fuel cell power, direct methanol fuel cell power and battery hybrid power pack systems.

The following fuels are considered within the scope of this document:

- gaseous hydrogen;
- liquid hydrogen compounds;
- methanol.

This document does not apply to reformer equipped fuel cell power systems.

A block diagram of a micro fuel cell power system is shown in Figure 1. This document covers the configuration, hybridization and operation modes for fuel cell/battery power systems.