

EC 62282-4-202:2023-10(en-fr)



Edition 1.0 2023-10

# **INTERNATIONAL STANDARD**

# **NORME** INTERNATIONALE

Fuel cell technologies -

Part 4-202: Fuel cell power systems for propulsion and auxiliary power units -**Unmanned aircrafts - Performance test methods** 

Technologies des piles à combustibles -

Partie 4-202: Systèmes à piles à combustible pour les groupes auxiliaires de puissance et de propulsion - Aéronefs sans pilote - Méthodes d'essai des performances





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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 27.070, 49.020 ISBN 978-2-8322-7587-0

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# CONTENTS

Ε(	OREWO	PRD	4
IN	ITRODU	JCTION	6
1	Scop	e	7
2	Norn	native references	7
3	Term	ns and definitions	7
4	Fuel	cell power system requirements for UAs	9
	4.1	System configuration	
	4.2	Appearance and structure	
	4.3	General technical requirements	
5	Test	preparation	11
	5.1	General	11
	5.2	Test environment	11
	5.3	Test equipment and accuracy	11
6	Test	methods	12
	6.1	Start-up time	12
	6.2	Time to achieve rated power output	12
	6.3	Rated power output	
	6.4	Continuous running duration	
	6.5	Peak power output	
	6.6	Output voltage range	
	6.7	Electric efficiency	
	6.8	Start-up and shutdown methods	
	6.9	Shutdown time	
	6.10	Acoustic noise level	
	6.11	Data transmission	
	6.12	Enclosure H <sub>2</sub> concentration	
	6.13	H <sub>2</sub> concentration in fuel exhaust	
	6.14	Enclosure IP code	
	6.15	H <sub>2</sub> leakage rate	
	6.16	Warning and monitoring	16
		(informative) Suggested aging test procedure for a fuel cell power system	17
		(informative) Guidelines for test reports	
, (	B.1	General	
	B.2	Title page	
	B.3	Table of contents	
	B.4	Summary report	
	B.5	Detailed report	
	B.6	Full report	
Bi		bhy	
Fi	gure 1 -	- General configuration of a fuel cell power system for UAs	10
	-	- Acoustic noise measurement points for fuel cell power system	
		1	

Table 1 – Test equipment and accuracy	11
Table 2 – Acoustic noise level correction	14
Table A.1 – Suggested aging test procedure for a fuel cell power system for a UA	17

# INTERNATIONAL ELECTROTECHNICAL COMMISSION

# **FUEL CELL TECHNOLOGIES -**

# Part 4-202: Fuel cell power systems for propulsion and auxiliary power units – Unmanned aircrafts – Performance test methods

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

Draft	Report on voting
105/998/FDIS	105/1009/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 <a href="https://www.iec.ch/members\_experts/refdocs">www.iec.ch/members\_experts/refdocs</a>. The main document types developed by IEC are described in greater detail at <a href="https://www.iec.ch/publications">www.iec.ch/publications</a>.

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# INTRODUCTION

This part of IEC 62282-4 provides consistent and repeatable test methods for the electrical, thermal and environmental performance of fuel cell power systems for unmanned aircrafts.

The IEC 62282-4 series deals with the safety, performance, and interchangeability of fuel cell power systems for propulsion for categories of vehicles other than road vehicles and for auxiliary power units (APUs). Among the categories covered by the IEC 62282-4 series, this document focuses on fuel cell power systems for unmanned aircrafts because there is an urgent demand for such an application in the world.

This part of IEC 62282-4 describes type tests and their test methods only. No routine tests are required or identified, and no performance targets are set in this document.

The purpose of this document is to evaluate the fuel cell system in the various combinations of fuel cell and unmanned aircrafts. This document provides a framework for designing and evaluating a fuel cell system for use specifically in an unmanned aircraft.

This part of IEC 62282-4 can be used by manufacturers of fuel cell power systems used for unmanned aircrafts or those who evaluate the performance of their systems for certification purposes.

Users of this document selectively execute test items that are suitable for their purposes from those described in this document. This document is not intended to exclude any other methods.