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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/Z 21742-2008

Portable proton exchange membrane fuel cell power systems

便携式质子交换膜燃料电池发电系统

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Foreword

This standardized guidance document is based on the research results of the field of fuel cells in our country, summarize the existing experience, and reference to the International Electrotechnical Commission IEC / T C105 on the draft standard for portable fuel cells drafted. This part of the drafting process, the main reference to the IEC / T C105/88 / CDV "Fuel Cell Technology Part 5. Portable Fuel Cell Safety and Performance Requirements." Appendix A of this guidance document is normative appendix, appendix B is an informative appendix. This guidance document is proposed by China Electrical Equipment Industry Association. This guidance document is subject to the National Fuel Cell Standardization Technical Committee (SAC/TC342). This guidance document is drafted by Dalian Xinyuan Power Co., Ltd. Participated in the drafting of the technical documents. Dalian Institute of Chemical Physics, Chinese Academy of Engineering, Beijing Institute of Electrical Technology and Economy, Beijing speeding Green Power Technology Co., Ltd., a new source of power Co., Ltd. and so on. The main drafters of this guidance document. Xu Hongfeng, Guo Liping, Ming Ping Wen, Lu Chen Yu, Zhang Lifang, Qiu Lidong and so on.

"Portable proton exchange membrane fuel cell power generation system" is the national "Tenth Five-Year" major science and technology projects important technical standards research project "new Research on Key Technical Standards of Energy and Renewable Energy

--- Proton Exchange Membrane Fuel Cell, Solar Hot Water System, Grid-connected Photovoltaic Power Generation and Wind Power Generator "research, combined with China's" 863 "plan fuel cell electric vehicle major project proton exchange membrane fuel cell technology Column one of the national standards. This Guidance Document specifies portable proton exchange membrane fuel cell power generation systems (including DC and AC Type) safety protection and the basic requirements of the structure, test items and test methods, marking, packaging, storage and transportation and to provide the user documentation The relevant requirements. This guidance applies to AC and DC portable proton exchange membrane fuel cell power generation systems. Fuel cells are not only suitable for the construction of stationary power plants to provide community and household electricity sources, but more importantly, To provide power for electric vehicles and micro-fuel cells for use in a variety of communications equipment, laptops and handheld computers. And fuel Battery technology is from these aspects of research and development to industrial change, fuel cells in fixed power stations, transport and portable power supply, etc. Aspects of commercialization are coming. Some technologies related to fuel cells will

also be commercialized in the next 5 to 10 years. Some new technologies, New materials and new components will also be rapidly developed on the basis of internationalization of the market. It is foreseeable that fuel cell technology will be sustained and rapid development of. During the "Ninth Five-Year Plan" and "Tenth Five-Year Plan" period, all the PEMFCs and their related technologies were listed as major projects in the country Scientific and technological breakthroughs include "863" fuel cell vehicles major projects, and has achieved initial results. At present, China's PEMFC technology To colleges and universities and research institutes for technical support to several major high-tech enterprises as a leader, has formed in Dalian, Shanghai, Beijing and Wuhan, etc. The main research and development base. Some of them have obtained patented technology with independent intellectual property rights and are actively promoting China's fuel cell technology Industrialization and commercialization. Early development of standards for the promotion of this new technology with unlimited potential for development - the commercialization and commercialization of fuel cells is very heavy need. International Electrotechnical Commission (IEC) established IEC /T C105 to be responsible for fuel cell professional standards work in recent years, very frequent activities Fan, has released a number of international standards fuel cell international standards IEC 62282-2..2004 "fuel cell technology module" and IEC 62282-1..2005 "Fuel Cell Technology Terminology." China is carrying out research on fuel cell technology and tracking the same international standards , According to China's actual arrangements for the development of relevant key technical standards, designed to reflect the standard early intervention in the industrialization of scientific and technological achievements, and the country The concept of international standards. Currently completed standard projects are. (1) Proton exchange membrane fuel cell terms (GB/T 20042.1-2005); (2) General technical requirements for proton exchange membrane fuel cell stacks (GB/T 20042.2-2008); (3) Portable proton exchange membrane fuel cell power generation system (GB /Z21742-2008); (4) Fixed proton exchange membrane fuel cell power generation system (independent type) performance test method (GB /Z21743-2008). Portable proton exchange membrane fuel cell power generation system

1 Scope

GB/Z 21742-2008 is the Chinese national standard on portable proton exchange membrane fuel cell power systems. The /Z suffix marks it as a guiding technical document: it does not prescribe requirements that can be certified against, but sets out the technique, the method or the state of the art that the standards bodies recommend following. It was issued on 20 May 2008 by the State Administration for Market Regulation; Standardization Administration of China. As a guiding technical document it carries no separate date of entry into force: it applies from publication. Classification: ICS (ICS) , CCS K82. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken