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**General rules for phosphoric acid
fuel cell power generating system**

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Contents

	Page
Introduction	1
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Components	2
5 Service conditions	3
5.1 Standard service condition	3
5.2 Special service condition	3
6 Classification	4
7 Standard configuration of equipment	4
8 Construction	5
8.1 Construction — General	5
8.2 Installation accuracy	6
8.3 Seismic adequacy	6
9 Correlation with external things	6
9.1 Terminals	6
9.2 Piping	7
9.3 Ducts	7
10 Ratings	7
10.1 Rated output	7
10.2 Rated voltage and frequency	8
10.3 Thermal output	8
10.4 Fuel consumption	8
11 Performance	8
11.1 Operating range	8
11.2 Steady-state characteristics	8
11.3 Start-stop characteristics	9
11.4 Environmental characteristics	9
11.5 Utility consumption characteristics	9
12 Reliability and safety	9
13 Tests	10
13.1 Construction test	10
13.2 Functional tests	11
13.3 Performance test	12

13.4	Environmental and safety tests	13
14	Inspections	13
14.1	Classification of inspections	13
14.2	Inspection items	14
15	Maintenance and checks	15
15.1	Maintenance standard	15
15.2	Periodic checks	15
15.3	Instruction manual	16

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal of revision of Japanese Industrial Standard submitted by the Japan Electrical Manufacturers' Association (JEMA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS C 8801:2002** is replaced with this Standard.

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General rules for phosphoric acid fuel power generating system

Introduction

This Japanese Industrial Standard was established in 2002, and has been revised at this time to update the contents to the newly published **IEC** standards and **JIS** standards related to polymer electrolyte fuel cells (PEFC).

No International Standard corresponding to this Standard has been established at this point.

1 Scope

This Standard specifies the fuel cell power generating systems which comply with the following items.

Each component which constitutes the system is specified by the relevant detail specifications.

- a) **Type of fuel cell** Normal pressure phosphoric acid fuel cell power facility
- b) **Output of system** 50 kW or more but less than 500 kW
- c) **Structural type** Integrated package type

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 2220 *Steel pipe flanges*

JIS B 2239 *Cast iron pipe flanges*

JIS C 1302 *Insulation resistance testers*

JIS C 8800 *Glossary of terms for fuel cell power system*

3 Terms and definitions

For the purpose of this Standard, the terms and definitions in **JIS C 8800** and the following apply.

3.1 active power output range

the range of active power over which a fuel cell can operate safely and continuously (expressed by sending end power)

3.2 reactive power output range

the range of reactive power over which a fuel cell can operate safely and continuously (expressed by sending end power)

3.3 shutdown time

the required time from stop of power generation to completion of prescribed shutdown process

3.4 supplementary feed water flow

the quantity of water required by a fuel cell power facility under normal operation, expressed by the flow rate averaged through 1 h

3.5 start-up power

the maximum power in the package which is necessary during the start-up time

For details of package, see figure 1.

3.6 thermal output

quantity of waste heat that can be recovered from a fuel cell power facility

4 Components

The fundamental structure of the fuel cell power generating system is shown in figure 1.