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

GB/T 2820.2-2009

Replacing GB/T 2820.2-1997

**Reciprocating internal combustion engine driven alternating
current generating sets -- Part 2: Engines**

往复式内燃机驱动的交流发电机组 第2部分：发动机

(English Translation)

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Foreword

GB/T 2820 in "reciprocating internal combustion engine driven alternator group," the general heading consists of the following components.

--- Part 1. Application, ratings and performance

- Part 2. Engines
- Part 3. Generator with alternator
- Part 4. Control and switchgear
- Part 5. Generator
- Part 6. Test methods
- Part 7. technical conditions for the technical description and design
- Part 8. small power generator set requirements and tests
- Part 9. Measurement and evaluation of mechanical vibrations
- Part 10. Measurement of noise (enveloping surface method)
- Part 11. Rotary uninterruptible power supply performance requirements and test methods
- Part 12. Emergency power supply to safety devices this is Part 2 GB/T 2820's. This part identical with ISO 8528-2. "Reciprocating internal combustion engine driven alternating current 2005 Turbines - Part 2. Engines. " this Part replaces GB/T 2820.2-1997 "Reciprocating internal combustion engine driven alternating current generating sets - Part 2. Engines." this section compared with the GB/T 2820.2-1997, in reference to the standard provisions layout, and other aspects of some of the terms we have a greater adjustment and modification.

This part is proposed by the China Electrical Equipment Industrial Association.

This part of the mobile station by the National Standardization Technical Committee (SAC/TC329) centralized.

This part mainly drafted by. Lanzhou Institute of power vehicles, Ordnance Engineering College, Air Force Radar Academy, Chongqing Communication Institute, Guangzhou Technology Co., Ltd., Shanghai Electric Power Co., Ltd. Fu Chong, Wuxi Cape Limited.

1 Scope

This section GB/T 2820 specifies the basic characteristics for AC (a.c.) reciprocating internal combustion turbine (RIC) machine.

This section applies to land and marine AC (a.c.) generating sets, but not for aerial or land vehicles and drive locomotive power Units with reciprocating internal combustion (RIC) engine.

For some special purposes (such as hospitals, high-rise buildings essential power supply), additional requirements may be necessary. The provisions of this section it can be used as the basis to determine any additional requirements.

The term of the AC drive (a.c.) reciprocating internal combustion generator speed and velocity characteristics (RIC) machine to be a list of instructions.

For other types of reciprocating prime mover (such as steam engines), the provisions of this section can be used as the basis.

2 Normative references

The following documents contain provisions which, through reference to GB/T 2820 to the present, constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 2820.1-2009 Reciprocating internal combustion engine driven alternating current generating sets - Part 1. Application, ratings and performance (ISO 8528-1:2005, IDT) GB/T 2820.5-2009 Reciprocating internal combustion engine driven alternating current generating sets - Part 5. Generator (ISO 8528-5.

2005, IDT)

GB/T 6072.1-2008 Reciprocating internal combustion engines - Part 1. Power, calibration and testing of fuel and lubricating oil consumptions Additional requirements for engines for general method (ISO 3046-1:2002, IDT) GB/T 6072.4-2000 Reciprocating internal combustion engines - Part 4. Speed (idt ISO 3046-4:1997) GB/T 6072.5-2003 Reciprocating internal combustion engines - Part 5. Torsional vibrations (ISO 3046-5:2001, IDT)

3 Symbols, terms and definitions

This section used symbols and abbreviations explained in Table 1.

Table 1 Symbols, terminology and definitions

Symbol	Term	Unit	Definition
n	Like engine speed	r/min	-Genset frequency corresponding to the engine speed when the shape r
n_r	Rated speed	r/min	Rated power Like sf fire speed r/min with the engine fuel supply system from an external energy engine accelerates from zero to run itself before the engine speed Like max maximum speed r/min (RIC) specified by the manufacturer by a reciprocating internal combustion engine, the speed limit is lower than a certain amount of hair safe Engine speed (See Notes 1 and 3)

GB/T 2820.2-2009/ISO 8528-2:2005