
**Reciprocating internal combustion
engine driven alternating current
generating sets —**

Part 1:

Application, ratings and performance

*Groupes électrogènes à courant alternatif entraînés par moteurs
alternatifs à combustion interne —*

Partie 1: Application, caractéristiques et performances



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 8528-1 was prepared by Technical Committee ISO/TC 70, *Internal combustion engines*.

This second edition cancels and replaces the first edition (ISO 8528-1:1993), which has been technically revised.

ISO 8528 consists of the following parts, under the general title *Reciprocating internal combustion engine driven alternating current generating sets*:

- *Part 1: Application, ratings and performance*
- *Part 2: Engines*
- *Part 3: Alternating current generators for generating sets*
- *Part 4: Controlgear and switchgear*
- *Part 5: Generating sets*
- *Part 6: Test methods*
- *Part 7: Technical declarations for specification and design*
- *Part 8: Requirements and tests for low-power generating sets*
- *Part 9: Measurement and evaluation of mechanical vibrations*
- *Part 10: Measurement of airborne noise by the enveloping surface method*
- *Part 11: Rotary uninterruptible power systems — Performance requirements and test methods¹⁾*
- *Part 12: Emergency power supply to safety services*

1) Part 11 will be published as ISO/IEC 88528-11.

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Reciprocating internal combustion engine driven alternating current generating sets —

Part 1: Application, ratings and performance

1 Scope

This part of ISO 8528 defines various classifications for the application, rating and performance of generating sets consisting of a Reciprocating Internal Combustion (RIC) engine, Alternating Current (a.c.) generator and any associated controlgear, switchgear and auxiliary equipment.

It applies to a.c. generating sets driven by RIC engines for land and marine use, excluding generating sets used on aircraft or to propel land vehicles and locomotives.

For some specific applications (e.g. essential hospital supplies, high-rise buildings) supplementary requirements may be necessary. The provisions of this part of ISO 8528 should be regarded as the basis for establishing any supplementary requirements.

For other reciprocating-type prime movers (e.g. sewage-gas engines, steam engines), the provisions of this part of ISO 8528 should be used as a basis for establishing these requirements.

Generating sets meeting the requirements of this International Standard are used to generate electrical power for continuous, peak-load and standby applications. The classifications laid down in this part of ISO 8528 are intended to help understanding between manufacturer and customer.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3046-1, *Reciprocating internal combustion engines — Performance — Part 1: Declarations of power, fuel and lubricating oil consumptions, and test methods — Additional requirements for engines for general use*

ISO 8528-2²⁾, *Reciprocating internal combustion engine driven alternating current generating sets — Part 2: Engines*

ISO 8528-3²⁾, *Reciprocating internal combustion engine driven alternating current generating sets — Part 3: Alternating current generators for generating sets*

ISO 8528-4²⁾, *Reciprocating internal combustion engine driven alternating current generating sets — Part 4: Controlgear and switchgear*

ISO 8528-5²⁾, *Reciprocating internal combustion engine driven alternating current generating sets — Part 5: Generating sets*

2) ISO 8528-2, 3, 4 and 5 are all under revision.