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

**Part 8:  
Requirements and tests for low-power  
generating sets**

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

*Partie 8: Prescriptions et essais pour groupes électrogènes de faible  
puissance*



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 70, *Internal combustion engines*.

This second edition cancels and replaces the first edition (ISO 8528-8:1995), 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 12: Emergency power supply to safety services*
- *Part 13: Safety*

# Reciprocating internal combustion engine driven alternating current generating sets —

## Part 8:

## Requirements and tests for low-power generating sets

### 1 Scope

This part of ISO 8528 defines design requirements, minimum performances and type tests for low-power generating sets driven by reciprocating internal combustion engines for land and marine use (domestic, recreational and industrial application), excluding generating sets used on aircraft.

It concerns mainly low-power generating sets driven by reciprocating internal combustion engines for the generation of single or multiphase alternating current or direct current up to 500 V. The generating sets are standard manufactured sets.

In this part of ISO 8528, “low-power” is taken to mean rated power of a magnitude up to approximately 10 kW/50 Hz, 12 kW/60 Hz. Low-power generating sets, for the purpose of this International Standard, are determined by the following special features:

- the users normally are laymen (for further details, see [3.1](#));
- the complete generating set is usually transportable or mobile;
- the electrical output is connected by means of plugs, sockets and screwed terminal except for extra low voltages;
- the generating set is ready for use without any additional installation work by the user.

Generating sets for special applications or of higher rated power conforming to the above special features may, by agreement between manufacturer and customer, be tested in accordance with this part of ISO 8528. If supplementary stipulations are required for certain applications, this is to be done taking this part of ISO 8528 as a basis.

This part of ISO 8528 deals with the special requirements of design and test which are observed in addition to the definitions and requirements laid down in ISO 8528-1, ISO 8528-2, ISO 8528-3, ISO 8528-4, ISO 8528-5 and ISO 8528-6, where applicable.

This part of ISO 8528 does not deal with safety requirements in order to protect the user from dangers which are laid down in ISO 8528-13.

NOTE This International Standard does not apply to arc welding equipment (IEC 60974 series).

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 8528-1:2005, *Reciprocating internal combustion engine driven alternating current generating sets — Part 1: Application, ratings and performance*