

INTERNATIONAL STANDARD

ISO
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Reciprocating internal combustion engine driven alternating current generating sets —

Part 4:

Controlgear and switchgear

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

Partie 4: Appareillage de commande et de coupure



Reference number
ISO 8528-4:1993(E)

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.

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.

International Standard ISO 8528-4 was prepared by Technical Committee ISO/TC 70, *Internal combustion engines*, Sub-Committee SC 2, *Performance and tests*.

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: Low-power general-purpose generating sets*
- *Part 9: Measurement and evaluation of mechanical vibration*

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- *Part 10: Measurement of airborne noise — Enveloping surface method*
- *Part 11: Security generating sets with uninterruptible power systems*

Parts 7, 8, 9 and 10 are in course of preparation. Part 11 is at an early stage of preparation and may be split into two parts.

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Reciprocating internal combustion engine driven alternating current generating sets —

Part 4: Controlgear and switchgear

1 Scope

This part of ISO 8528 specifies criteria for controlgear and switchgear for generating sets with reciprocating internal combustion engines.

It applies to alternating current (a.c.) generating sets driven by reciprocating internal combustion (RIC) engines for land and marine use, excluding generating sets used on aircraft or to propel land vehicles and locomotives.

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

For generating sets driven by other prime movers (e.g. sewage gas engines, steam engines) this part of ISO 8528 should be applied as a basis.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8528. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8528 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6826:1982, *Reciprocating internal combustion engines — Fire protection*.

ISO 8528-5:1993, *Reciprocating internal combustion*

engine driven alternating current generating sets — Part 5: Generating sets.

IEC 34-1:1983, *Rotating electrical machines — Part 1: Rating and performance*.

IEC 298:1990, *A.C. metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV*.

IEC 439-1:1985, *Low-voltage switchgear and controlgear assemblies — Part 1: Requirements for type-tested and partially type-tested assemblies*.

IEC 947-1:1988, *Low-voltage switchgear and controlgear — Part 1: General rules*.

3 Other regulations and additional requirements

3.1 For a.c. generating sets used on board ships and offshore installations which have to comply with rules of a classification society, the additional requirements of the classification society shall be observed. The classification society shall be stated by the customer prior to placing of the order.

For a.c. generating sets operating in non-classed equipment, such additional requirements are in each case subject to agreement between the manufacturer and customer.

3.2 If special requirements from regulations of any other authority (e.g. inspecting and/or legislative authorities) have to be met, the authority shall be stated by the customer prior to placing of the order.