



IEC 61892-3

Edition 3.0 2012-03

INTERNATIONAL STANDARD

**Mobile and fixed offshore units – Electrical installations –
Part 3: Equipment**





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**Mobile and fixed offshore units – Electrical installations –
Part 3: Equipment**

INTERNATIONAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MOBILE AND FIXED OFFSHORE UNITS – ELECTRICAL INSTALLATIONS –

Part 3: Equipment

FOREWORD

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International Standard IEC 61892-3 has been prepared by IEC technical committee 18: Electrical installations of ships and of mobile and fixed offshore units.

This third edition cancels and replaces the second edition published in 2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Table 4 in the previous edition of IEC 61892-3 regarding type testing has been deleted. Information regarding environmental conditions, including requirements to vibration, is now given in Clause 4;
- b) for liquid immersed transformers requirement for overheating alarm and shut down has been added;

- c) requirements for low voltage switchgear and controlgear have been rewritten, based on IEC 61439-1 and IEC 61439-2. Only additional requirements to those given in IEC 61439 are given in the standard;
- d) requirements to low voltage circuit breakers, switches, contactors and fuses have been added;
- e) requirement for subdivision of high voltage switchboard has been added;
- f) requirements for luminaires have been deleted and replaced with reference to IEC 60598 series and IEC 60092-306;
- g) requirements for heating and cooking appliances have been deleted and replaced with reference to IEC 60335 series;
- h) requirement for portable equipment has been added.

The text of this standard is based on the following documents:

| FDIS | Report on voting |
|--------------|------------------|
| 18/1241/FDIS | 18/1256/RVD |

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts of the IEC 61892 series, under the general title *Mobile and fixed offshore units – Electrical installations*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

IEC 61892 forms a series of International Standards intended to enable safety in the design, selection, installation, maintenance and use of electrical equipment for the generation, storage, distribution and utilisation of electrical energy for all purposes in offshore units which are being used for the purpose of exploration or exploitation of petroleum resources.

This part of IEC 61892 also incorporates and co-ordinates, as far as possible, existing rules and forms a code of interpretation, where applicable, of the requirements of the International Maritime Organisation (IMO), a guide for future regulations which may be prepared and a statement of practice for offshore unit owners, constructors and appropriate organisations.

This standard is based on equipment and practices which are in current use but it is not intended in any way to impede the development of new or improved techniques.

The ultimate aim has been to produce a set of International standards exclusively for the offshore petroleum industry.

MOBILE AND FIXED OFFSHORE UNITS – ELECTRICAL INSTALLATIONS –

Part 3: Equipment

1 Scope

This part of IEC 61892 contains provisions for electrical equipment in mobile and fixed offshore units including pipeline, pumping or 'pigging' stations, compressor stations and exposed location single buoy moorings, used in the offshore petroleum industry for drilling, processing and for storage purposes.

This standard applies to equipment in all installations, whether permanent, temporary, transportable or hand-held, to a.c. installations up to and including 35 000 V and d.c. installations up to and including 1 500 V (a.c. and d.c. voltages are nominal values).

This standard sets requirements for equipment, which are additional to the requirements given in the product standard for the relevant equipment.

This standard does not apply to the electrical installations in rooms used for medical purposes or in tankers.

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.

IEC 60034-1, *Rotating electrical machines – Part 1: Rating and performance*

IEC 60034-14 *Rotating electrical machines – Part 14: Mechanical vibration of certain machines with shaft height 56 mm and higher – Measurement, evaluation and limits of vibration severity*

IEC 60044-1, *Instrument transformers – Part 1: Current transformers*

IEC 60065, *Audio, video and similar electronic apparatus – Safety requirements*

IEC 60076-1, *Power transformers – Part 1: General*

IEC 60076-5, *Power transformers – Part 5: Ability to withstand short circuit*

IEC 60076-6, *Power transformers – Part 6: Reactors*

IEC 60076-7, *Power transformers – Part 7: Loading guide for oil-immersed power transformers*

IEC 60076-8, *Power transformers – Part 8: Application guide*

IEC 60076-11, *Power transformers – Part 11: Dry-type transformers*