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Standards

Irish Standard  
I.S. EN 50191:2010

# Erection and operation of electrical test equipment

## I.S. EN 50191:2010

*Incorporating amendments/corrigenda issued since publication:*

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<b>NSAI</b> 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie  W NSAI.ie	<b>Sales:</b> T +353 1 857 6730 F +353 1 857 6729 W standards.ie
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**EN 50191**

**NORME EUROPÉENNE**

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Supersedes EN 50191:2000

English version

## **Erection and operation of electrical test equipment**

Installation et exploitation des  
équipements électriques d'essais

Errichten und Betreiben elektrischer  
Prüfanlagen

This European Standard was approved by CENELEC on 2010-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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# **CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

This European Standard was prepared by CENELEC BTTF 128-2, Erection and operation of electrical test equipment. It was submitted to the formal vote and was approved by CENELEC as EN 50191 on 2010-10-01.

This document supersedes EN 50191:2000.

The principal changes compared to EN 50191:2000 are as follows (minor changes are not listed):

- Update of the normative references;
- 3.12 electrically skilled person (modified definition);
- 4.1 Structure of test installation changed;
- 4.2.1 Electro-optical safety device specified;
- 4.3.5 Requirements for RCM specified;
- 4.7 associate the additional requirements when using safety test probes;
- 5.2 time of repetition of instruction specified to one year.

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

The following dates were fixed:

- |  |       |            |
|--|-------|------------|
| – latest date by which the EN has to be implemented<br>at national level by publication of an identical<br>national standard or by endorsement | (dop) | 2011-10-01 |
| – latest date by which the national standards conflicting<br>with the EN have to be withdrawn  | (dow) | 2013-10-01 |
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## **Introduction**

With reference to Clause 5 of this European Standard, prepared in the field of application of Article 137 of the EC Treaty, the user should be aware that standards have no formal legal relationship with Directives which may have been made under Article 137 of the Treaty. In addition, national legislation in the Member States may contain more stringent requirements than the minimum requirements of a Directive based on Article 137 of the Treaty. Information on the relationship between the national legislation implementing Directives based on Article 137 of the Treaty and this European Standard may be given in a national foreword of the national standard implementing this European Standard.

## 1 Scope

**1.1** This European Standard is applicable to the erection and operation of fixed and temporary electrical test installations.

**1.2** Compliance with this European Standard is not necessary, if contact with live parts presents no danger. This is the case when one of the following conditions is satisfied at live exposed points:

- a) the voltage at frequencies above 500 Hz does not exceed 25 V a.c. or 60 V d.c. and complies with the requirements for SELV or for PELV in accordance with HD 60364-4-41;
- b) in case of voltages at frequencies up to 500 Hz exceeding 25 V a.c. or 60 V d.c., the resultant current through a non-inductive resistance of 2 k $\Omega$  does not exceed 3 mA a.c. (r.m.s.) or 12 mA d.c.;
- c) at frequencies above 500 Hz the national determined current and voltage values shall be applied. If there are no national requirements determined reference values for permissible body currents and contact voltages can be taken from Table A.1;
- d) the discharge energy does not exceed 350 mJ.

NOTE 1 Even though compliance with the requirements of this European Standard is not necessary, if one of the above-mentioned conditions is satisfied, other potential risks e. g. risk of fire and explosion shall be considered and appropriate measures be taken.

NOTE 2 Ref. 1.2 b) & 1.2 d): The values for the resultant current of 3 mA a.c. or 12 mA d.c. and the discharge energy of 350 mJ comply with the values for live working specified in EN 50110-1. These values also comply with the values specified in IEC/TS 60479-1.

**1.3** This European Standard does not apply to the power supply to the test installations. In this case, the documents of the HD 60364 series (for nominal voltages up to 1 000 V) or HD 637 (for nominal voltages exceeding 1 kV) are applicable to erection and EN 50110-1 is applicable to operation.

**1.4** Where no requirements are given in this European Standard, the documents of the HD 60364 series (for nominal voltages up to 1 000 V) or HD 637 (for nominal voltages exceeding 1 kV) apply to the erection of electrical test installations and EN 50110-1 applies to the operation of electrical test installations.

## 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.

EN ISO 13850:2008, Safety of machinery – Emergency stop – Principles for design (ISO 13850:2006)

EN 574:1996 + A1:2008, Safety of machinery – Two-hand control devices – Functional aspects – Principles for design

EN 999, Safety of machinery – The positioning of protective equipment in respect of approach speeds of parts of the human body

EN 50110-1, Operation of electrical installations

EN 60529, Degrees of protection provided by enclosures (IP Code) (IEC 60529)

EN 61140, Protection against electric shock – Common aspects for installation and equipment (IEC 61140)

EN 61219, Live working – Earthing or earthing and short-circuiting equipment using lances as short-circuiting device – Lance earthing (IEC 61219)

EN 61230, Live working – Portable equipment for earthing or earthing and short-circuiting (IEC 61230)

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