Irish Standard
I.S. EN 50488:2021

Railway applications - Fixed installations - Electrical protective measures for working on or near an overhead contact line system and/or its associated return circuit

I.S. EN 50488:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN 50488:2021 is the adopted Irish version of the European Document EN 50488:2021, Railway applications - Fixed installations - Electrical protective measures for working on or near an overhead contact line system and/or its associated return circuit

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50488

January 2021

ICS 13.260; 45.020

Supersedes CLC/TR 50488:2006 and all of its amendments and corrigenda (if any)

English Version

Railway applications - Fixed installations - Electrical protective measures for working on or near an overhead contact line system and/or its associated return circuit

Applications ferroviaires - Installations fixes - Mesures de protection électriques pour des activités de travail sur ou à proximité des systèmes de lignes aériennes de contact et/ou le circuit de retour associé

Bahnanwendungen - Ortsfeste Anlagen - Elektrische Schutzmaßnahmen bei Arbeiten an oder in der Nähe einer Oberleitungsanlage und/oder ihrer zugehörigen Rückleitung

This European Standard was approved by CENELEC on 2020-06-29. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 50488:2021) has been prepared by CLC/SC 9XC “Electric supply and earthing systems for public transport equipment and ancillary apparatus (Fixed installations)”, of Technical Committee CLC/TC 9X, “Electrical and electronic applications for railways”.

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2021-07-29
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2026-01-29

This document supersedes CLC/TR 50488:2006 and all of its amendments and corrigenda (if any).

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

Introduction

This document provides railway specific requirements for electrical protective measures for working on or near an overhead contact line system and/or its associated return circuit.

When developing this document, EN 50110-1, *Operation of electrical installations – Part 1: General requirements*, was used as a guide. EN 50110-1 was not developed specifically to apply to the electric traction system which have different characteristics than those commonly found in other electrical installations.

Due to the numerous variations of organization, this document does not give any recommendations concerning organisational structure.

Because of numerous variations in overhead contact lines with nominal voltage lower than 1,5 kV, this document does not deal with work activities on or near these overhead contact lines and/or their associated return circuit.

The trend in Europe is that “dead working” is more common than “live working”. In the countries where live working on the overhead contact lines is allowed, the national regulation should state the necessary safety rules.

1 Scope

This document provides requirements for electrical safety for:

- dead working on an overhead contact line system;
- working activities near an overhead contact line system when it is live.

It applies to all work activities in relation to electrical hazards only.

This document is applicable to overhead contact line systems with the following nominal voltages and configurations:

- 1,5 kV and 3 kV DC;
- 15 kV, 2x15 kV, 25 kV and 2x25 kV AC.

It also provides requirements for work activities that can give rise to electrical hazards from the return circuit.

This document does not cover electrical risk arising from:

- live working on overhead contact line systems (live working can be carried out according to national requirements, regulations and practices);
- working on or near other electrical sources or electrical systems connected to or close to the OCL system and its return circuit.

If there are no other rules or procedures, the principles described in this document can be applied to overhead contact line systems with other nominal voltages.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 50122-1:2011, *Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 1: Protective provisions against electric shock*

3 Terms, definitions, symbols and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1.1 General

3.1.1.1
charged
qualifies an entity having non-zero electric charge

[SOURCE: IEC 60050-113:2011, 113-06-26]