BS EN 50119:2020

BSI Standards Publication

Railway applications — Fixed installations — Electric traction overhead contact lines

National foreword

This British Standard is the UK implementation of EN 50119:2020. It supersedes BS EN 50119:2009+A1:2013, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/9/3, Railway Electrotechnical Applications - Fixed Equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Supersedes EN 50119:2009 and all of its amendments and corrigenda (if any)

English Version

Railway applications - Fixed installations - Electric traction overhead contact lines

Applications ferroviaires - Installations fixes - Lignes aériennes de contact pour la traction électrique

Bahnanwendungen - Ortsfeste Anlagen - Oberleitungen für die elektrische Zugförderung

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

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European foreword

This document (EN 50119:2020) has been prepared by CLC/SC 9XC, "Electric supply and earthing systems for public transport equipment and ancillary apparatus (Fixed installations)" of 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) 2021-01-13
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2023-01-13

This document supersedes EN 50119:2009, as impacted by EN 50119:2009/A1:2013.

EN 50119:2020 includes the following significant technical changes with respect to EN 50119:2009, as impacted by EN 50119:2009/A1:2013:

— requirements for urban mass transportation system are included;

— requirement for rigid overhead contact line (ROCL) are included;

— additional definitions for new terms are included (Clause 3);

— clearances and geometry of overhead contact line are improved (Clause 5);

— urban aspects are added, e.g. wall anchors (Clause 6);

— monitoring devices and automatic earthing and short-circuiting equipment are included (Clause 7);

— overhead contact line for electric trucks is added (Annex C).

Other improvements of this document came from the publication of IEC 60913.

In relation to Subclause 5.1.3, electrical coordination activities are on-going in CLC/SC 9XC (FprEN 50119, the EN 50124 series, prEN 50488 and the EN 50122 series). A Technical Report will be proposed.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive 2016/797/EU, see informative Annex ZZ, which is an integral part of this document.

1 Scope

This document applies to overhead contact line systems in heavy railways, light railways, trolley buses and industrial railways of public and private operators.

This document applies to new installations of overhead contact line systems and for the complete renewal of existing overhead contact line systems.

This document contains the requirements and tests for the design of overhead contact lines, requirements for structures and their structural calculations and verifications as well as the requirements and tests for the design of assemblies and individual parts.

This document does not provide requirements for ground level conductor rail systems (see Figure 1).

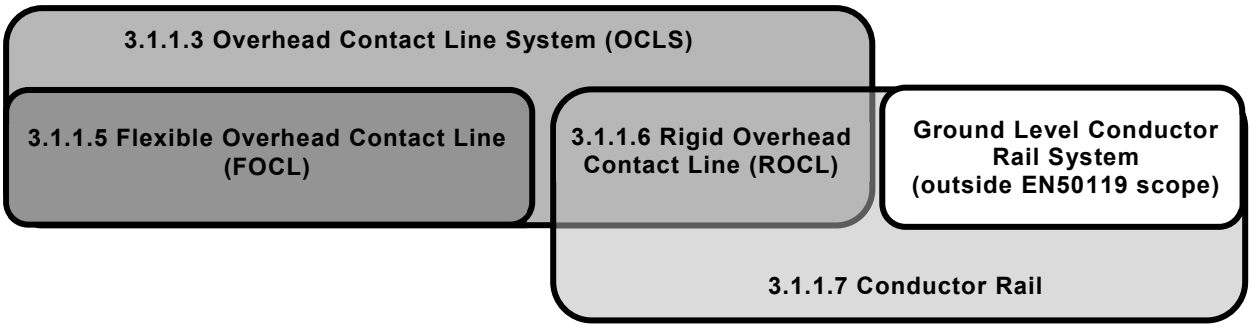

Figure 1 — Scope of contact line systems

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 206, *Concrete - Specification, performance, production and conformity*

EN 485 (all parts), *Aluminium and aluminium alloys – Sheet, strip and plate*

EN 755 (all parts), *Aluminium and aluminium alloys – Extruded rod/bar, tube and profiles*

EN 1536, *Execution of special geotechnical work – Bored piles*

EN 1537, *Execution of special geotechnical works - Ground anchors*

EN 1990:2002, *Eurocode - Basis of structural design*

EN 1090-2:2018, *Execution of steel structures and aluminium structures - Part 2: Technical requirements for steel structures*

EN 1991-1-4:2005, *Eurocode 1: Actions on structures - Part 1-4: General actions - Wind actions*

EN 1991-2, *Eurocode 1: Actions on structures - Part 2: Traffic loads on bridges*

EN 1992 (all parts), *Eurocode 2: Design of concrete structures*

EN 1993 (all parts), *Eurocode 3: Design of steel structures*