



BSI Standards Publication

Test requirements for low voltage aerial bundled cable accessories

Part 4: Connectors

This is a preview of BS EN 50483-4:2026. [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN 50483-4:2026. It supersedes BS EN 50483-4:2009, which will be withdrawn on 30 April 2029.

The UK participation in its preparation was entrusted to Technical Committee GEL/20/11, Electric Cable accessories.

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

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

© The British Standards Institution 2026
Published by BSI Standards Limited 2026

ISBN 978 0 539 34026 6

ICS 29.240.20

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

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 April 2026.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

This is a preview of BS EN 50483-4:2026. [Click here to purchase the full version from the ANSI store.](#)

EUROPÄISCHE NORM

April 2026

ICS 29.240.20

Supersedes EN 50483-4:2009

English Version

Test requirements for low voltage aerial bundled cable accessories - Part 4: Connectors

Prescriptions relatives aux essais des accessoires pour réseaux aériens basse tension torsadés - Partie 4: Connecteurs

Prüfanforderungen für Bauteile für isolierte Niederspannungsfreileitungen - Teil 4: Verbinder

This European Standard was approved by CENELEC on 2026-03-09. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



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

This is a preview of BS EN 50483-4:2026. [Click here to purchase the full version from the ANSI store.](#)

Contents	Page
European foreword.....	4
Introduction.....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	6
4 Symbols.....	9
5 Characteristics.....	9
6 Marking.....	9
7 General test conditions.....	9
7.1 Generalities.....	9
7.2 Preconditioning of ABC.....	9
8 Type tests.....	10
8.1 IPC tests.....	10
8.1.1 Installation of IPCs.....	10
8.1.2 Mechanical testing.....	10
8.1.3 Dielectrical voltage tests and water tightness test.....	16
8.1.4 Low temperature assembly test.....	20
8.1.5 Environmental tests.....	21
8.1.6 Electrical ageing test.....	24
8.2 Pre-insulated through connectors (sleeve).....	24
8.2.1 Installation of connectors.....	24
8.2.2 Mechanical testing.....	24
8.2.3 Dielectrical voltage test.....	26
8.2.4 Low temperature assembly test.....	27
8.2.5 Environmental test.....	28
8.2.6 Electrical ageing test.....	31
8.2.7 Endurance tests.....	31
8.3 Pre-insulated terminals (lugs).....	36
8.3.1 Installation of lugs.....	36
8.3.2 Mechanical testing.....	36
8.3.3 Water tightness test.....	37
8.3.4 Low temperature assembly test.....	38
8.3.5 Environmental test.....	39
8.3.6 Electrical ageing test.....	41
Annex A (informative) Temporary connectors – Temperature rise and overload test.....	42
Bibliography.....	46
Figures	
Figure 1 — Test arrangement.....	12
Figure 2 — Typical impact test arrangement.....	15
Figure 3 — Illustrative arrangement for dielectrical test in water.....	17
Figure 4 — Arrangement for dielectrical test in metallic balls.....	18
Figure 5 — Typical arrangement for dielectrical test with metallic gauze.....	19
Figure 6 — Test arrangement for the water tightness test.....	20

This is a preview of BS EN 50483-4:2026. [Click here to purchase the full version from the ANSI store.](#)

Figure 7 — Orientation of the samples for the climatic ageing test	23
Figure 8 — Illustrative installation of the mechanical test	26
Figure 9 — Illustrative set up for dielectrical voltage test.....	27
Figure 10 — Climatic ageing test arrangement	30
Figure 11 — Illustrative set up of the testing assembly.....	32
Figure 12 — Diagram of thermal cycles and mechanical stresses applied on phase conductor	33
Figure 13 — Diagram of thermal cycles and mechanical loads on neutral conductor	35
Figure 14 — Illustrative installation of the mechanical test	37
Figure 15 — Illustrative figure of immersed lug	38
Figure 16 — Illustrative arrangement of immersion test in sodium hydroxide solution .	40
Figure A.1 — Example of a pin connection.....	43
Figure A.2 — Test loop	44
Tables	
Table 1	11
Table 2 — Initial loads required for marking	25
Table 3 — Test loads	25
Table 4 — Applied tensile load.....	35
Table 5 — Tensile loads.....	36

This is a preview of BS EN 50483-4:2026. [Click here to purchase the full version from the ANSI store.](#)

European foreword

This document (EN 50483-4:2026) has been prepared by CLC/TC 20 “Electric cables”.

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) 2027-04-30
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2029-04-30

This document supersedes EN 50483-4:2009 and all of its amendments and corrigenda (if any).

EN 50483-4:2026 includes the following significant technical changes with respect to EN 50483-4:2009:

— Scope was extended to brackets.

This is Part 4 of the EN 50483 series, “Test requirements for low voltage aerial bundled cable accessories”, which has six parts:

- Part 1: Generalities;
- Part 2: Tension and suspension clamps, fittings and brackets for self-supporting system;
- Part 3: Tension and suspension clamps, fittings and brackets for neutral messenger system;
- Part 4: Connectors;
- Part 5: Electrical ageing test;
- Part 6: Environmental testing.

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.

Any feedback and questions on this document should be directed to the users’ national committee. A complete listing of these bodies can be found on the CENELEC website.

This is a preview of BS EN 50483-4:2026. [Click here to purchase the full version from the ANSI store.](#)

Introduction

The objective of the EN 50483 series is to provide a method of testing the suitability of accessories when used under normal operating conditions with low voltage aerial bundled cables (ABC) complying with HD 626 S2.

This document does not invalidate existing approvals of products achieved on the basis of national standards and specifications and/or the demonstration of satisfactory service performance. However, products approved according to such national standards or specifications cannot directly claim approval to this document. It might be possible, subject to agreement between the customer and the manufacturer and/or the supplier, and/or the relevant conformity assessment body, to demonstrate that conformity to the earlier standard can be used to claim conformity to this document, provided an assessment is made of any additional type testing that might need to be carried out. Any such additional testing that is part of a sequence of testing cannot be done separately.

This is a preview of BS EN 50483-4:2026. [Click here to purchase the full version from the ANSI store.](#)

1 Scope

The EN 50483 series applies to overhead line fittings for tensioning, supporting and connecting aerial bundled cables (ABC) of rated voltage $U_0/U (U_m)$: 0,6/1 (1,2) kV.

This document applies to connectors used for the electrical connection of ABC.

The connectors are designed to be installed where either the main and/or branch cable is ABC as defined by HD 626 S2.

Tests described in this document are type tests.

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 50182, *Conductors for overhead lines - Round wire concentric lay stranded conductors*

EN 50483-1:2026, *Test requirements for low voltage aerial bundled cable accessories - Part 1: Generalities*

EN 50483-5:2026, *Test requirements for low voltage aerial bundled cable accessories*

EN 50483-6:2026, *Test requirements for low voltage aerial bundled cable accessories*

EN 60529:1991,¹ *Degrees of protection provided by enclosures (IP Code)*

HD 626 S2, *Overhead distribution cables of rated voltage $U_0/U(U_m)$: 0,6/1 (1,2) kV*

IEC 60050-461, *International Electrotechnical Vocabulary (IEV) – Part 461: Electric cables*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-461 and the following apply.

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

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

3.1

aerial bundled cable

ABC

aerial cable consisting of a group of insulated conductors which are twisted together including, or not, a non-insulated conductor

[SOURCE: IEC 461-08-02, modified]

Note 1 to entry: The terms bundled conductors, bundled cables, bundled cores, conductor bundles and bundle could be used as equivalent to the term aerial bundled cable (ABC).

¹ As impacted by EN 60529:1991/corrigendum May 1993, EN 60529:1991/A1:2000, EN 60529:1991/A2:2013, EN 60529:1991/AC:2016-12 and EN 60529:1991/A2:2013/AC:2019-02.