

BS EN 62852:2015+A1:2020  
Incorporating corrigendum February 2019



BSI Standards Publication

## Connectors for DC-application in photovoltaic systems — Safety requirements and tests

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## National foreword

This British Standard is the UK implementation of EN 62852:2015+A1:2020, incorporating corrigendum February 2019. It is identical to IEC 62852:2014, incorporating amendment 1:2020. It supersedes BS EN 62852:2015, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by  $\text{A1}$   $\text{A1}$ .

The UK participation in its preparation was entrusted to Technical Committee GEL/82, Photovoltaic Energy Systems.

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

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### Amendments/corrigenda issued since publication

Date	Text affected
31 May 2015	This corrigendum renumbers BS IEC 62852:2014 as BS EN 62852:2015
28 February 2019	Implementation of CENELEC corrigendum February 2019: supersession details added to CENELEC European foreword
31 May 2020	Implementation of IEC amendment 1:2020 with CENELEC endorsement A1:2020

EUROPEAN STANDARD

**EN 62852:2015+A1**

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English Version

## Connectors for DC-application in photovoltaic systems - Safety requirements and tests (IEC 62852:2014)

Connecteurs pour applications en courant continu pour systèmes photovoltaïques - Exigences de sécurité et essais  
(IEC 62852:2014)

Steckverbinder für Gleichspannungsanwendungen in Photovoltaik-Systemen - Sicherheitsanforderungen und Prüfungen  
(IEC 62852:2014)

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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

The text of document 82/878/FDIS, future edition 1 of IEC 62852, prepared by IEC/TC 82 "Solar photovoltaic energy systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62852:2015.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-12-11

This document supersedes EN 50521:2008.

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-2-70:1995	NOTE	Harmonized as EN 60068-2-70:1996 (not modified).
IEC 60112:2003	NOTE	Harmonized as EN 60112:2003 (not modified).
IEC 60364-4-41:2005	NOTE	Harmonized as HD 60364-4-41:2007 (modified).
IEC 60364-5-51:2005	NOTE	Harmonized as HD 60364-5-51:2009 (modified).
IEC 60364-5-54:2011	NOTE	Harmonized as HD 60364-5-54:2011 (not modified).
IEC 61730-1:2004	NOTE	Harmonized as EN 61730-1:2007 (modified).
IEC 61730-2	NOTE	Harmonized as EN 61730-2.

## **Foreword to amendment A1**

The text of document 82/1646/FDIS, future IEC 62852/A1, prepared by IEC/TC 82 "Solar photovoltaic energy systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62852:2015/A1:2020.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-04-29

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CONNECTORS FOR DC-APPLICATION IN PHOTOVOLTAIC SYSTEMS –  
SAFETY REQUIREMENTS AND TESTS**

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International Standard IEC 62852 has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

This International Standard is derived from EN 50521.

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

FDIS	Report on voting
82/878/FDIS	82/905/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.



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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.

# CONNECTORS FOR DC-APPLICATION IN PHOTOVOLTAIC SYSTEMS – SAFETY REQUIREMENTS AND TESTS

## 1 Scope

This International Standard applies to connectors for use in the d.c. circuits of photovoltaic systems according to class II of IEC 61140:2001 with rated voltages up to 1 500 V d.c. and rated currents up to 125 A per contact.

This standard applies to connectors without breaking capacity but which might be engaged and disengaged under voltage.

This standard also applies to connectors which are intended to be built-in or integrated in enclosures of devices for photovoltaic systems. This standard may be used as a guide for connectors in photovoltaic systems of classes 0 and III according to IEC 61140:2001 as well as for protection for Class II equipment intended for use at less than 50 V d.c. <sup>A1</sup> This document does not apply to connectors for data collection, tracker controls or similar, but it may be used as a guide for those connectors. <sup>A1</sup>

## 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.

<sup>A1</sup> IEC 60050 (all parts): *International Electrotechnical Vocabulary* (available at <http://www.electropedia.org>)

IEC 60060-1, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60068-1, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-14, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

IEC 60068-2-75, *Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests*

IEC 60068-2-78, *Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state*

IEC 60112, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

IEC 60216-1, *Electrical insulating materials – Thermal endurance properties – Part 1: Ageing procedures and evaluation of test results*

IEC 60216-5, *Electrical insulating materials – Thermal endurance properties – Part 5: Determination of relative thermal endurance index (RTE) of an insulating material*

IEC 60228, *Conductors of insulated cables*