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Photovoltaics in buildings - Part 2: BIPV systems

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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### **English Version**

## Photovoltaics in buildings - Part 2: BIPV systems

Systèmes photovoltaïques dans la construction - Partie 2: Systèmes photovoltaïques incorporés au bâti Photovoltaik im Bauwesen - Teil 2: BIPV-Anlagen

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## **European foreword**

This document (EN 50583-2:2016) has been prepared by CLC/TC 82 "Solar photovoltaic energy systems".

The following dates are fixed:

•	latest date by which this document has to be implemented at national level by publication of an identical national	(dop)	2016-10-12
•	standard or by endorsement latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2018-10-12

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

## 1 Scope

This document applies to photovoltaic systems that are integrated into buildings with the photovoltaic modules used as construction products. It focuses on the properties of these photovoltaic systems relevant to essential building requirements as specified in the European Construction Product Regulation CPR 89/106/EEC, and the applicable electro-technical requirements as stated in the Low Voltage Directive 2006/95/EC / or CENELEC standards. This document references international standards, technical reports and guidelines. For some applications in addition national standards (or regulations) for building works may apply in individual countries, which are not explicitly referenced here.

The document is addressed to manufacturers, planners, system designers, installers, testing institutes and building authorities.

This document does not apply to concentrating or building-attached photovoltaic systems. 1

This document addresses requirements on the BIPV systems in the specific ways they are intended to be mounted but not the BIPV modules as construction products, which is the topic of EN 50583-1.

### 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.

EN 410, Glass in building — Determination of luminous and solar characteristics of glazing

EN 1027, Windows and doors — Watertightness — Test method

EN 1990, Eurocode: Basis of structural design

EN 1991 (all parts), Eurocode 1: Actions on structures

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

EN 1995 (all parts), Eurocode 5: Design of timber structures

EN 1999 (all parts), Eurocode 9: Design of aluminium structures

EN 12179, Curtain walling — Resistance to wind load — Test method

prEN 12488, Glass in buildings — Glazing recommendations — Assembly principles for vertical and sloping glazing

EN 12519, Windows and pedestrian doors — Terminology

EN 12600, Glass in building — Pendulum test — Impact test method and classification for flat glass

EN 12758, Glass in building — Glazing and airborne sound insulation — Product descriptions and determination of properties

EN 13022 (all parts), Glass in building — Structural sealant glazing

EN 13116, Curtain walling — Resistance to wind load — Performance requirements

EN 13119, Curtain walling —Terminology

EN 13363-1, Solar protection devices combined with glazing — Calculation of solar and light transmittance — Part 1: Simplified method

<sup>&</sup>lt;sup>1</sup> For the definition building-attached photovoltaic systems refer to 3.2

EN 13363-2, Solar protection devices combined with glazing — Calculation of total solar energy transmittance and light transmittance — Part 2: Detailed calculation method

EN 13501-2, Fire classification of construction products and building elements — Part 2: Classification using data from fire resistance tests, excluding ventilation services

EN 13501-5, Fire classification of construction products and building elements — Part 5: Classification using data from external fire exposure to roofs tests

EN 13830, Curtain walling — Product standard

EN 13956, Flexible sheets for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics

EN 14351-1, Windows and doors — Product standard, performance characteristics — Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics

EN 14500. Blinds and shutters — Thermal and visual comfort — Test and calculation methods

EN 14782, Self-supporting metal sheet for roofing, external cladding and internal lining — Product specification and requirements

EN 14783, Fully supported metal sheet and strip for roofing, external cladding and internal lining — Product specification and requirements

EN 15804, Sustainability of construction works — Environmental product declarations — Core rules for the product category of construction products

CEN/TR 15941, Sustainability of construction works — Environmental product declarations — Methodology for selection and use of generic data

EN 15942, Sustainability of construction works — Environmental product declarations — Communication format business-to-business

EN 15978, Sustainability of construction works — Assessment of environmental performance of buildings — Calculation method

EN 16002, Flexible sheets for waterproofing — Determination of the resistance to wind load of mechanically fastened flexible sheets for roof waterproofing

EN 50583-1, Photovoltaics in buildings – Part 1: BIPV modules

HD 60364-7-712, Electrical installations of buildings — Part 7-712: Requirements for special installations or locations — Solar photovoltaic (PV) power supply systems (IEC 60364-7-712)

CLC/TS 61836, Solar photovoltaic energy systems — Terms, definitions, symbols (IEC/TS 61836)

EN 62446, Grid connected photovoltaic systems — Minimum requirements for system documentation, commissioning tests and inspection (IEC 62446)

EN ISO 6946, Building components and building elements — Thermal resistance and thermal transmittance — Calculation method (ISO 6946)

EN ISO 12543-1, Glass in building — Laminated glass and laminated safety glass — Part 1: Definitions and description of component parts (ISO 12543-1)

EN ISO 12543-2, Glass in building — Laminated glass and laminated safety glass — Part 2: Laminated safety glass (ISO 12543-2)

EN ISO 12543-3, Glass in building — Laminated glass and laminated safety glass — Part 3: Laminated glass (ISO 12543-3)

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EN ISO 12543-4, Glass in building — Laminated glass and laminated safety glass — Part 4: Test methods for durability (ISO 12543-4)

EN ISO 12543-5, Glass in building — Laminated glass and laminated safety glass — Part 5: Dimensions and edge finish (ISO 12543-5)

EN ISO 12543-6, Glass in building — Laminated glass and laminated safety glass — Part 6: Appearance (ISO 12543-6)

prEN ISO 14439, Glass in building — Glazing requirements — Use of glazing blocks (ISO/DIS 14439)

EN ISO 12631, Thermal performance of curtain walling — Calculation of thermal transmittance (ISO 12631)

ETAG 002, Guideline for European Technical Approval for Structural Sealant Glazing Systems – SSGS

N 0068/CEN-TC128-WG3-N0068 TR Renewable energy systems for roof structural connections

# koniec náhľadu – text ďalej pokračuje v platenej verzii STN