



**SLOVENSKI STANDARD**  
**oSIST prEN 16603-20-08:2022**  
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**Vesoljska tehnika - Fotonapetostni sestavi in komponente**

Space engineering - Photovoltaic assemblies and components

Raumfahrttechnik - Fotovoltaische Baugruppen und Komponenten

Ingénierie spatiale - Ensembles et composants photovoltaïque

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## Space engineering - Photovoltaic assemblies and components

Ingénierie spatiale - Ensembles et composants photovoltaïques

Raumfahrttechnik - Fotovoltaische Baugruppen und Komponenten

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/CLC/JTC 5.

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## European Foreword

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This document (prEN 16603-20-08:2022) has been prepared by Technical Committee CEN/CLC/TC 5 "Space", the secretariat of which is held by DIN (Germany).

This document (prEN 16603-20-08:2022) originates from ECSS-E-ST-20-08C Rev.2 DIR1.

This document is currently submitted to the ENQUIRY.

This document will supersede EN 16603-20-08:2014.

This document has been developed to cover specifically space systems and will therefore have precedence over any EN covering the same scope but with a wider do-main of applicability (e.g. : aerospace).

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# Introduction

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The qualification, procurement, storage and delivery of space solar arrays are defined in the dedicated solar array specification, where requirements for the solar array electrical layout, structure and mechanism are specified.

This Standard outlines the requirements for the qualification, procurement, storage and delivery of the main assemblies and components of the space solar array electrical layout: photovoltaic assemblies, solar cell assemblies, bare solar cells, coverglass and protection diodes. This Standard does not outline the requirements for the qualification, procurement, storage and delivery of the solar array subsystem, comprising the solar panels, structural parts and mechanisms.

The general requirements are covered in the main part of this Standard (clauses 5 to 11). Annex A to Annex E specify the contents of the source control drawing of photovoltaic and solar cell assemblies, bare solar cells coverglasses and protection diodes and include the inspection data, physical and electrical characteristics, other ratings and acceptance and qualification specific requirements, which can be different for each space project.

This Standard is divided into five specific subjects, each one corresponding to each assembly or component:

- Clause 5 defines requirements for photovoltaic assemblies,
- Clause 6 for solar cell assemblies,
- Clause 7 for bare solar cells,
- Clause 8 for coverglasses,
- Clause 9 for protection diodes.

Two additional clauses are dedicated to Sun simulators and calibration procedures (clause 10 and capacitance measurement methods (clause 11).