PD IEC/TS 62789:2014

BSI Standards Publication

Photovoltaic concentrator cell documentation

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National foreword

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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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TECHNICAL SPECIFICATION

SPECIFICATION TECHNIQUE

colour inside

Photovoltaic concentrator cell documentation

Documentation relative aux cellules photovoltaïques à concentration

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PHOTOVOLTAIC CONCENTRATOR CELL DOCUMENTATION

FOREWORD

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Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 62789, which is a technical specification, has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
82/776/DTS	82/821/RVC

Full information on the voting for the approval of this technical specification 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.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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PHOTOVOLTAIC CONCENTRATOR CELL DOCUMENTATION

1 Scope and object

This Technical Specification provides guidelines for the parameters to be specified for concentrator photovoltaic cells (both multijunction and single junction) and provides recommendations and references for measurement techniques. No attempt is made to determine pass/fail criteria for cells.

The purpose of this specification is to define the performance and physical characteristics of concentrator cells. This specification may also be used for describing cell assemblies and receivers, but is not written to specifically address cell packaging. It is not intended to standardize the properties of the concentrator cells, but to standardize how the properties are communicated.

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.

IEC 60904-3, *Photovoltaic devices – Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data*

IEC 62787, *Concentrator photovoltaic (CPV) solar cells and cell-on-carrier (COC) assemblies – Reliability qualification*[1]

3 Specifications for concentrator cells

All concentrator cell datasheets complying with this specification shall provide, as part of their product marking and documentation, the information specified in Table 1 below. See subsequent clauses and subclauses of this Technical Specification for further explanation of individual specifications. In addition to the information indicated by the examples, it is required to include a sketch of the cell and the indicated graphs.

Some of the specifications are optional; however, if a concentrator cell manufacturer chooses to include optional information, it should be reported and measured using the definitions provided in this Technical specification.

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1 To be published.