ICS 27.160 SLOVENSKÁ TECHNICKÁ NORMA Január 2022

STN	**Fotovoltické systémy vyrábajúce energiu EMC požiadavky a skúšobné metódy na zariadenia na premenu energie Zmena A1**	**STN EN 62920/A1** 33 3432

Photovoltaic power generating systems - EMC requirements and test methods for power conversion equipment

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/21

STN EN 62920 z augusta 2018 sa bez tejto zmeny A1 môže používať do 15. 10. 2024.

Obsahuje: EN 62920:2017/A1:2021, IEC 62920:2017/AMD1:2021

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62920:2017/A1

October 2021

ICS 27.160

English Version

Photovoltaic power generating systems - EMC requirements and test methods for power conversion equipment (IEC 62920:2017/A1:2021)

Systèmes de production d'énergie photovoltaïque - Exigences de CEM et méthodes d'essai pour les équipements de conversion de puissance (IEC 62920:2017/A1:2021)

Photovoltaische Stromerzeugungssysteme - EMV-Anforderungen und Prüfverfahren für Leistungsumrichter (IEC 62920:2017/A1:2021)

This amendment A1 modifies the European Standard EN 62920:2017; it was approved by CENELEC on 2021-05-11. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

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This amendment 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.

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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

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EN 62920:2017/A1:2021 (E)

European foreword

The text of document 82/1835/FDIS, future IEC 62920/A1, prepared by IEC/TC 82 "Solar photovoltaic energy systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62920:2017/A1:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-04-15
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-10-15

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This document has been prepared under a Standardization Request given to CENELEC by the European Commission and the European Free Trade Association.

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.

Endorsement notice

The text of the International Standard IEC 62920:2017/A1:2021 was approved by CENELEC as a European Standard without any modification.

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

IEC 62109-1:2010 NOTE Harmonized as EN 62109-1:2010 (not modified)

IEC 62933-1:2018 NOTE Harmonized as EN IEC 62933-1:2018 (not modified)

IEC 62920

Edition 1.0 2021-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
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Photovoltaic power generating systems – EMC requirements and test methods for power conversion equipment

Systèmes de production d'énergie photovoltaïque – Exigences de CEM et méthodes d'essai pour les équipements de conversion de puissance

IEC 62920:2017-07/AMD1:2021-04(en-fr)

IEC 62920

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INTERNATIONAL
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COMMISSION

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INTERNATIONALE

ICS 27.160

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FOREWORD

This amendment has been prepared by the IEC technical committee 82: Solar photovoltaic energy systems.

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

FDIS	Report on voting
82/1835/FDIS	82/1874/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this amendment and the base 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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

Replace the existing text of the Introduction with the following:

Background

Power conversion equipment (PCE) is indispensable for solar photovoltaic power energy systems in order to convert the DC electric power energy generated by solar photovoltaic panels into AC or DC electric power, and to feed the AC power energy into the AC mains network or loads. PCE consists of DC to DC, DC to AC or AC to DC converters and forms systems with or without DC-coupled electrical energy storage devices.

Manufacturers of PCE ensure the performance and reliability of PCE. Electromagnetic compatibility (EMC) is one aspect of performance which must be ensured wherever PCE is used in or exposed to an electromagnetic environment.

IEC Guide 107 specifies that TC 77 and CISPR, which are called EMC committees, have responsibility for the development of basic, product family and generic standards on EMC requirements, and product committees must use the emission limits developed by EMC committees and must refer to basic immunity standards for the specification of test techniques.

However, when the EMC standards which are developed by TC 77 and CISPR are not considered suitable for a particular product or electromagnetic environment, product committees must seek their assistance and advice for any change in the emission limits and/or measurement requirements. Product committees are responsible for selecting the appropriate immunity test items and levels for their products as well as for defining the relevant performance criteria for the evaluation of the immunity test results. Consequently, product committees, such as TC 22, TC 26, TC 9, and TC 69, have their own EMC standard to define EMC requirements and test methods for their particular types of products.

TC 82 also has the responsibility to consider EMC requirements for PCE applying to the solar photovoltaic power energy systems, and TC 82 has taken action as follows to develop its own product EMC standards:

a) selection of the immunity test items in accordance with EMC environments for the solar photovoltaic power energy systems,

b) supplement of generic standards with a detailed description of test conditions and test set up,

c) development of the conditional limits and alternative test methods in terms of installation environmental and operational conditions, and

d) development of appropriate requirements and test method for high power equipment.

In 2017, TC82 published IEC 62920 (Ed.1.0). By taking into account the latest market needs, IEC 62920:2017 (Ed.1.0) has covered the above mentioned items and presents the minimum EMC requirements for PCE applying to solar photovoltaic power energy systems.

Purpose of the maintenance of a product EMC standard

Following the state of the art technology as well as the latest market needs, users of standards recognize the improvement of product EMC standards. The maintenance of product standards is also one of important activities for product committees.

IEC 62920:2017 (Ed.1.0) is amended to extend the scope of IEC 62920:2017 (Ed.1.0) by taking into account the following technical items.

– DC to DC power conversion equipment used in photovoltaic power energy systems.

– Electrical energy storage devices connected to DC power ports of PCE used in photovoltaic power energy systems.

Furthermore, IEC 62920:2017 (Ed.1.0) is amended to cover the latest options of measurement distance of radiated disturbances by taking the latest updates of CISPR 16-1-4 and CISPR 16-2-3 into consideration to adapt it to different sizes of products.

1 Scope

Replace the existing first paragraph with the following:

This document specifies electromagnetic compatibility (EMC) requirements for power conversion equipment (PCE) (e.g. DC to DC, DC to AC and AC to DC) for use in photovoltaic (PV) power systems with or without DC-coupled electrical energy storage devices.