IEC 62894

Edition 1.1 2016-11

FINAL VERSION

Photovoltaic inverters – Data sheet and name plate

IEC 62894:2014-12+AMD1:2016-11 CSV(en)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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This Consolidated version of IEC 62894 bears the edition number 1.1. It consists of the first edition (2014-12) [documents 82/887/FDIS and 82/917/RVD] and its amendment 1 (2016-11) [documents 82/1175/FDIS and 82/1205/RVD]. The technical content is identical to the base edition and its amendment.

This Final version does not show where the technical content is modified by amendment 1. A separate Redline version with all changes highlighted is available in this publication.

International Standard IEC 62894 has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

This standard has been derived from EN 50524.

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

The committee has decided that the contents of the base publication and its amendment 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- withdrawn,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.

A bilingual version of this publication may be issued at a later date.

PHOTOVOLTAIC INVERTERS – DATA SHEET AND NAME PLATE

1 Scope

This International Standard describes data sheet and name plate information for photovoltaic inverters in grid parallel operation.

The object of this standard is to provide minimum information required to configure a safe and optimal system with photovoltaic inverters.

In this context, data sheet information is a technical description separate from the photovoltaic inverter. The name plate is a sign of durable construction on or in the photovoltaic inverter. The name plate may be inside the photovoltaic inverter only if the name plate is visible once a door is opened in normal use.

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 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60664-1, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 60721-2-1, *Classification of environmental conditions – Part 2-1: Environmental conditions appearing in nature – Temperature and humidity*

IEC 61683, *Photovoltaic systems – Power conditioners – Procedure for measuring efficiency*

IEC 62109-1, *Safety of power converters for use in photovoltaic power systems – Part 1: General requirements*

ISO 216, *Writing paper and certain classes of printed matter – Trimmed sizes – A and B series, and indication of machine direction*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 Input side (PV generator)

3.1.1
maximum input voltage
V_{dcmax}
allowed maximum voltage at the inverter input