

ICS 27.160
CCS F 12



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 46986.2-2025

**Photovoltaic (PV) systems - Requirements for testing,
documentation and maintenance - Part 2: Grid connected
systems - Maintenance of PV systems**

光伏系统 测试、文件和维护要求 第2部分：并网系统 光伏系统的维护
(English Translation)

Issued on: December 31, 2025

Implemented on: July 1, 2026

Issued by: State Administration for Market Regulation

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References

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 2 of GB/T 46986, "Requirements for Testing, Documentation and Maintenance of Photovoltaic Systems". GB/T 46986 has been published.

The following section.

---Part 1: Documentation, commissioning tests, and inspections of grid-connected photovoltaic systems;

---Part 2: Maintenance of Grid-Connected Photovoltaic Systems this document is equivalent to IEC 62446-2:2020 "Photovoltaic systems - Test, documentation and maintenance requirements - Part 2: Grid-connected systems" Maintenance of the Volt system.

The following minimal editorial changes have been made to this document.

- a) The suspended paragraph at the beginning of Chapter 4 of the international standard has been deleted, and the relevant content has been integrated into 4.1;
- b) Change the symbol "x" in the table to "-" to indicate applicable symbols.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This document is under the jurisdiction of the National Technical Committee on Standardization of Solar Photovoltaic Energy Systems (SAC/TC90).

Introduction

GB/T 46986, "Requirements for Testing, Documentation and Maintenance of Photovoltaic Systems," aims to provide recommendations applicable to the maintenance needs of grid-connected photovoltaic systems.

The requirements are proposed to consist of the following two parts.

---Part 1: Documentation, Commissioning Testing, and Inspection of Grid-Connected Photovoltaic Systems. The purpose is to specify the documentation, commissioning tests, and inspections required after the installation of a grid-connected photovoltaic system.

The information and documents provided to the client outline the expected trial operation tests, verification standards, and documentation to validate the system installation.

Safety and correct operation.

---Part 2: Maintenance of Grid-Connected Photovoltaic Systems. The purpose is to specify the system documentation and verification procedures required for the maintenance of grid-connected photovoltaic systems.

Certificates, tests, and verification reports describe the basic requirements and recommendations for prevention, troubleshooting, and performance maintenance of grid-connected photovoltaic systems.

Note: The correspondence between each part and the IEC 62446 series of international standards is as follows.

---Part 1 corresponds to IEC 62446-1;

---Part 2 corresponds to IEC 62446-2.

The purpose of this document is to provide necessary information and documentation for grid-connected photovoltaic (PV) systems, design requirements for PV systems, and regular inspection procedures.

The document outlines the investigation and testing methods, and specifies corresponding testing procedures for grid-connected photovoltaic systems of different scales, types, locations, and complexities.

Photovoltaic system testing, documentation and maintenance requirements Part 2:
Maintenance of Grid-Connected Photovoltaic Systems

1 Scope

This document specifies the system documentation, verification, testing, and verification reports required for the maintenance of grid-connected photovoltaic (PV) systems, and describes the grid-connected PV system...

This document outlines basic prevention, defect elimination, and performance maintenance requirements and recommendations, proposes maintenance activities to maximize expected performance, and summarizes roof maintenance practices.

Or, considerations specific to ground-mounted systems.

This document applies to the maintenance of grid-connected photovoltaic systems.

This document does not apply to off-grid photovoltaic systems or systems containing electrochemical energy storage or other energy storage; however, some of its contents may be applicable.

This document applies to the photovoltaic circuits of these systems. It also does not apply to the maintenance of medium- and high-voltage AC equipment used in large-scale photovoltaic systems, because...

These requirements are not unique to photovoltaic systems.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

Chapter 2 of GB/T 46986.1-2025 applies.

Increase.

GB/T 46986.1-2025 Photovoltaic systems - Testing, documentation and maintenance requirements - Part 1: Documentation and commissioning of grid-connected photovoltaic systems Testing and inspection (IEC 62446-1:2016, IDT) IEC 61557 (all parts) - Test of electrical safety measures for low-voltage power distribution systems below 1000V AC and 1500V DC.

Note: GB/T 18216 (all parts) - Tests and measurements of electrical safety protection measures for low-voltage power distribution systems below 1000V AC and 1500V DC.

Or monitoring equipment (IEC 61557, IDT) IEC TS62446-3:2017 Photovoltaic systems - Testing, documentation and maintenance requirements - Part 3: Photovoltaic modules and equipment - Outdoor infrared