

ICS 27.160
CCS F 12



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

GB/T 34932-2025

Replacing GB/T 34932-2017

**Technical specification for the remote monitoring and control
system of distributed photovoltaic power systems**

分布式光伏发电系统远程监控技术规范

Issued on: December 2, 2025

Implemented on: April 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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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 supersedes GB/T 34932-2017 "Technical Specification for Remote Monitoring of Distributed Photovoltaic Power Generation Systems" and is consistent with GB/T 34932-2017. In comparison, aside from structural adjustments and editorial changes, the main technical changes are as follows:

---The scope of application has been changed (see Chapter 1, Chapter 1 of the.2017 edition);

---The term "General Provisions" has been changed to "General Requirements," and some clauses have been modified (see Chapter 4, Chapter 4 of the.2017 edition);

---Added requirements for normal system operation conditions, including environmental conditions, power requirements, lightning protection, and grounding (see Chapter 5);

---The phrase "System Architecture and Configuration" has been changed to "System Architecture," modifying the remote monitoring system architecture and its description, and providing an acceptance... The typical partitioned and layered architecture of a remote monitoring system for power system dispatching is presented, and the typical architecture diagram is included in Appendix A (see Chapter 6). Chapter 5 of the.2017 edition);

---The content of the original five chapters, "Main Station Functions," "Sub-station Requirements," "Communication," "Main Station Performance," and "Sub-station Performance," has been integrated and merged into "Technology." The requirements were

revised, and relevant content was modified (see Chapter 7, Chapters 6-10 of the.2017 edition).

---A new chapter on "Testing and Inspection" for remote monitoring systems has been added, specifying the testing items, equipment, and procedures (see Chapter 8);

---Added requirements for the labeling, packaging, transportation, and storage of remote monitoring systems (see Chapter 9). 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 and is under the jurisdiction of the China Electricity Council. This document was drafted by: China Electric Power Research Institute Co., Ltd., National Power Dispatch and Control Center, and Sungrow Power Supply Co., Ltd. China Three Gorges Corporation, Huaneng Jiangsu Integrated Energy Service Co., Ltd., Fudan University, State Grid Integrated Energy Service Group Co., Ltd. The company, State Grid Tianjin Electric Power Company, State Grid Henan Electric Power Company, State Grid Jiangxi Electric Power Research Institute, Trina Solar (Jiangsu) Digital Intelligence Technology Co., Ltd. The main drafters of this document are. Hua Guanghui, Zhou Chang, Zhang Xiangwen, Li Feng, Zhou Caiqi, Li Chen, Hu Ruwei, Xia Junrong, Hu Chunyu, Chen Ning, and Cao Xueyuan. Zhou Yefei, Chen Zhilei, Sun Wenwen, Liu Haixuan, Yu Ruoying, Han Junfei, Chen Xiaoxi, Yin Jie, Sun Yaojie, Xiong Junjie, Ye Rongbo, Zhen Qing, Wang Jinggang Wang Chun, Liao Jiaqi, Zhao Moxuan, Zhu Jianjun, Sha Zhou, and Mou Bin. The release history of this document and the document it replaces is as follows:

---First published in.2017 as GB/T 34932-2017;

---This is the first revision. Remote monitoring technology specifications for distributed photovoltaic power generation systems

1 Scope

GB/T 34932-2025 is the Chinese national standard covering watching and controlling millions of small rooftop systems from a distance - the data each inverter reports, the aggregation, the commands that can be sent to curtail or disconnect, and the security of a control path into private property. It replaces GB/T 34932-2017. It was issued on 2 December 2025 and has been in force since 1 April 2026, replacing GB/T 34932-2017. The document is under the responsibility of the China Electricity Council. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the normal operating conditions, system architecture, technical requirements, and markings for remote monitoring systems of distributed photovoltaic power generation systems. The contents include packaging, transportation, and storage, and describe the corresponding testing methods. This document applies to remote

monitoring systems for distributed photovoltaic (PV) power generation systems connected to the grid at voltage levels below 10kV (hereinafter referred to as "remote monitoring systems"). The design, manufacture, inspection, operation, maintenance and repair of the "process monitoring system".

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.

GB/T 191 Packaging and Storage Graphic Symbols

GB/T 4798.2 Classification of Environmental Conditions - Classification of Environmental Parameter Groups and Grading of Severity - Part

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 A power generation system that uses photovoltaic modules to directly convert solar radiation energy into electrical energy at or near the user's site. [Source: GB/T 38946-2020, 3.1]

3.2 Point of connection For photovoltaic (PV) power generation systems with a step-up substation, this refers to the high-voltage side busbar or node of the step-up substation. For PV power generation systems without a step-up substation, this refers to the... Output aggregation point of the volt-volt power generation system. [Source: GB/T 29319-2024, 3.3]

3.3 The connection point where the photovoltaic power generation system is connected to the public power grid. [Source: GB/T 29319-2024, 3.2]