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

GB/T 32900-2025

Replacing GB/T 32900-2016

**Technical requirements for the relay protection of photovoltaic
power stations**

光伏电站继电保护技术要求

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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 replaces GB/T 32900-2016 "Technical Specification for Relay Protection of Photovoltaic Power Stations". Compared with GB/T 32900-2016, except for... Aside from structural adjustments and editorial changes, the main technical changes are as follows:

---The scope of the document has been changed (see Chapter 1, Chapter 1 of the.2016 edition);

---Added some terms and definitions (see 3.5, 3.13, 3.14);

---Added requirements for the photovoltaic power station setting calculation model and parameters (see 4.9);

---Added requirements for the operating performance of protection devices under low short-circuit ratios (see 4.10);

---Added performance requirements for current transformers used in relay protection (see 4.11);

---Added requirements related to the access of the collection system to voltage levels of 35kV and below (see 5.1.6);

---Added requirements for the configuration and setting of small current grounding protection in single-bay protection devices under the neutral point grounding via arc suppression coil (see...) 5.1.7, 6.1.15);

---Added operating requirements for grounding transformers under special operating modes and main step-up transformer wiring configurations (see

5.1.8 and 5.1.10);

---The configuration and setting requirements for the collection line protection have been changed (see 5.2, 6.2, and

6.2 in the 2016 version);

---The protection configuration and setting requirements for the sectionalizing circuit breakers on the busbar have been changed (see 5.4, 6.4, and

1 Scope

GB/T 32900-2025 is the Chinese national standard covering protecting a solar plant - the difficulty being that an inverter contributes almost no fault current, so the protection cannot rely on seeing a large one, and the settings have to work for a source that behaves nothing like a generator. It replaces GB/T 32900-2016, and it belongs with the short-circuit calculation standards GB/T 47510-2026 and GB/T 46813-2025. It was issued on 2 December 2025 and has been in force since 1 April 2026, replacing GB/T 32900-2016. 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 general requirements, configuration requirements, setting requirements, and setting management requirements for relay protection of photovoltaic power stations. This document applies to relay stations connected to the grid at voltage levels of 10kV and above (including photovoltaic power stations equipped with electrochemical energy storage). Research and development, design, manufacturing, testing, commissioning, scheduling, operation, maintenance, and repair related to electrical protection. Other grid-connected photovoltaic power generation at different voltage levels. The station shall follow suit.

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 14285-2023 Technical Specification for Relay Protection and Safety Automatic Devices

GB/T 14598.24 Measuring relays and protective devices - Part

24. Transient data exchange (COMTRADE) for power systems Use format

GB/T 19964-2024 Technical Specifications for Connecting Photovoltaic Power Stations to Power Systems

GB/T 20840.2 Instrument Transformers - Part

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 This includes photovoltaic power generation systems and all types of buildings, electrical equipment, and auxiliary facilities that provide operation, inspection, and maintenance services for them. The power plant inside. [Source: GB 50797-2012, 2.1.6, with modifications]