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

GB/T 33342-2026

Replacing GB/T 33342-2016

**Technical requirements for the grid connection of residential
distributed photovoltaic systems**

户用分布式光伏发电并网技术要求

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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 supersedes GB/T 33342-2016 "Technical Specification for Grid Connection Interface of Residential Distributed Photovoltaic Power Generation" and is consistent with GB/T 33342-2016. 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.2016 edition);

---Added terms and definitions for common connection points and response time (see

---Active power control requirements have been added for residential distributed photovoltaic power generation (see Chapter 4);

---The reactive power and voltage regulation requirements for residential distributed photovoltaic power generation have been changed (see Chapter 5,

5.1 of the.2016 edition);

---Added fault ride-through requirements for residential distributed photovoltaic power

generation (see Chapter 6);

---Changes have been made to the voltage adaptability, frequency adaptability, and power quality adaptability requirements for residential distributed photovoltaic (PV) power generation (see 7.1, 7.2, and 7.3). 7.3 (

5.2 in the.2016 edition)

---The power quality requirements for residential distributed photovoltaic (PV) power generation have been changed (see Chapter 8,

5.3 of the.2016 edition);

---Added start-up and shutdown requirements for residential distributed photovoltaic power generation (see Chapter 9);

---The relay protection requirements for residential distributed photovoltaic (PV) power generation have been revised (see Chapter 10, sections 5.4, 6.1, and

1 Scope

GB/T 33342-2026 is the Chinese national standard covering connecting a rooftop PV system to the low voltage network - the inverter's protection and anti-islanding, the voltage rise it may cause at the end of a rural feeder, the metering and the safety of a generator on a house. China has installed rooftop PV on millions of houses since the last edition, mostly in villages on weak networks, which is what this revision is for. It replaces GB/T 33342-2016 and has been in force since 1 July 2026. It was issued on 31 March 2026 and has been in force since 1 July 2026, replacing GB/T 33342-2016. This page is published from the official record of the 2026 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 active power, reactive voltage, fault ride-through, grid adaptability, and power quality for grid-connected residential distributed photovoltaic (PV) power generation. Technical requirements for start-up and shutdown, relay protection, power metering, communication and information, and grid connection testing. This document applies to the grid connection, commissioning, and maintenance of newly built or renovated (expanded) residential distributed photovoltaic power generation systems connected to the grid at a 220V voltage level. run.

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 12325 Power Quality - Supply Voltage Deviation

GB/T 12326 Power Quality - Voltage Fluctuations and Flicker

GB/T 13955 Installation and Operation of Residual Current Operated Protective Devices

GB/T 14549 Power Quality - Harmonics in Public Power Grids

GB/T 15945 Power Quality - Frequency Deviation of Power Systems

GB/T 17215.321 Electrical measuring equipment (AC) Part

21.Static active energy meters (Class A, Class B, Class C,... (Class D and Class E)

GB/T 24337 Power Quality - Inter-grid Harmonics

GB/T 50065 Grounding Design Code for AC Electrical Installations DL/T 448 Technical Management Regulations for Electricity Metering Devices DL/T 614 Multifunctional Energy Meter DL/T 645 Communication Protocol for Multifunctional Energy Meters DL/T 698.45 Power Information Acquisition and Management System - Part 4-

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Output aggregation point for residential distributed photovoltaic power generation.

3.2 Connection point for household distributed photovoltaic power generation to the public power grid.

3.3 response time During the control process, from the moment a control command is received or a change in the state variable that triggers a control operation is detected, until the observed variable is actually output...