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

GB/T 33708.1-2025

**Electricity metering equipment(DC) - Part 1: General
requirements**

直流电能测量设备 第1部分：通用要求
(English Translation)

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative References	
3 Terms and Definitions	
3.1 General Definitions	
3.2 Instrument Port Definitions	
3.3 Definitions related to measurement	
4 Nominal power capacity 6.	
4.1 Voltage	
4.2 Current	
4.3 Power Consumption	
5 Structural Requirements 8.	
5.1 General Requirements	
5.2 Mechanical Testing	
5.3 Window	
5.4 Terminals, terminal blocks, and protective conductor terminals	
5.5 Seal	
5.6 Measurement value displayed.	
5.7 Measurement value storage	
5.8 Pulse Output	
5.9 Electrical pulse input	
5.10 Auxiliary power supply	
6 Instrument Identification and Documentation	
6.1 Instrument accuracy class marking	
6.2 Instrument Marking	
6.3 Wiring Diagram and Terminal Labeling	
6.4 Symbol	
6.5 Document	
7 Metrological performance requirements and tests	
7.1 General Test Conditions	
7.2 Accuracy Verification Method	

- 7.3 Measurement uncertainty
- 7.4 Instrument constant test
- 7.5 Initial Start-up Test
- 7.6 No-load test
- 7.7 Starting Current Test
- 7.8 Repeatability Test
- 7.9 Basic error
- 7.10 Error offset limit caused by influence quantity
- 7.11 Timing accuracy
- 8 Climate and environmental requirements
 - 8.1 General Requirements
 - 8.2 Environmental Conditions
 - 8.3 Climate and Environmental Impact Test
 - 8.4 Durability
- 9 External Influence and the Impact of Disturbance
 - 9.1 General Requirements
 - 9.2 Acceptance Criteria
 - 9.3 Electromagnetic Compatibility (EMC)
 - 9.4 Tests against other influences
- 10 Safety Requirements and Tests
 - 10.1 Protection against mechanical hazards
 - 10.2 Resistance to mechanical stress (spring hammer test)
 - 10.3 Preventing the spread of flames
 - 10.4 Instrument temperature limits and heat resistance 40°C
 - 10.5 Dustproof and waterproof
 - 10.6 Clearance and creepage distance
 - 10.7 Electrical safety requirements
- 11 Metrological performance protection
- 12 Type Tests
 - 12.1 Test Conditions
 - 12.2 Type Test Report
- Appendix A (Normative) Optical Test Output
- Appendix B (Normative) Class A and Class B Electrical Pulses
 - B.1 Electrical performance of pulse output
 - B.2 Pulse output waveform

B.3 Pulse Output Test

B.4 Pulse Input Test

Appendix C (Normative) Electrical Pulses for Special Applications and Long-Distance Transmission conforming to GB/T 3369.1-2008

C.1 Specified operating conditions and output pulse waveform

C.2 Pulse Output Test

C.3 Pulse Input Test

Appendix D (Informative) Instrument Symbols and Marks

Appendix E (Normative) Electromagnets for Testing the Influence of Externally Generated Magnetic Fields

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 1 of GB/T 33708 "Dual Current Energy Measurement Equipment". GB/T 33708 has the following parts published.

---Part 1: General Requirements;

---Part 2: Indirect connection to static energy meters (Class 0.2, Class 0.5 and Class 1).

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 China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Electrical Instruments and Meters (SAC/TC104).

Introduction

GB/T 33708 "DC Power Measurement Equipment" aims to specify the general requirements, tests and test conditions for DC power measurement equipment.

GB/T 33708 is proposed to consist of the following parts.

---Part 1: General Requirements. The purpose is to specify the general requirements and related tests and type test conditions for DC energy meters.

---Part 2: Indirect Connection to Static Energy Meters (Class 0.2, 0.5, and 1). The purpose is to specify the requirements for newly manufactured meters with direct current...

Indirect access static DC power for measuring and controlling DC power in the network, with accuracy classes of 0.2, 0.5, and 1.

The type test requirements and test methods for the table.

---Part 3: Direct Connection to Static Energy Meters (Class 0.5 and Class 1). The purpose is to specify the requirements for newly manufactured meters for measuring energy in DC power grids.

Type test requirements for direct-connection static energy meters that measure and control DC power with accuracy classes of 0.5 and 1.

and its experimental methods.

---Part 4: Digital Static DC Energy Meters. The purpose is to specify the calculation methods for newly manufactured digital static DC energy meters.

Quantitative performance, influence quantity requirements, and type testing, etc.

This document is intended to be used in conjunction with other parts of GB/T 33708.

This document outlines the minimum test levels required to ensure proper instrument function under normal operating conditions; other requirements may apply to special application scenarios.

The testing level is agreed upon by the user and the manufacturer.

The technical requirements applicable to DC power measurement equipment in IEC 62052-11:2020 are extracted and combined.

Other general technical requirements are incorporated into this document.

DC power measurement equipment - Part 1: General requirements

1 Scope

This document specifies the general requirements and related tests, as well as type test conditions, for DC power measurement equipment (hereinafter referred to as "instruments").

The test includes functional requirements, mechanical requirements, electrical requirements, safety requirements, labeling requirements, and immunity to external influences such as electromagnetic and climatic environments.

Test methods and test conditions.

Note 1: For specific accuracy requirements and other special requirements of instruments of each accuracy class, see the Special Requirements section of GB/T 33708.

Note 2: For other general requirements, such as the metering methods and requirements for