



**ANSI C12.1-2014**

*American National Standard for Electric Meters—  
Code for Electricity Metering*

Secretariat:

**National Electrical Manufacturers Association**

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**American National Standards Institute, Inc.**

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**FOREWORD** (This foreword is not part of American National Standard C12.1-2014)

This version of C12.1 has been modified in several areas in an effort to respond to a changing industry and to improve the clarity of some of the tests. This standard continues to form the basic requirement for all kilowatt-hour metering devices—both electronic and electromechanical. Another standard in this series, ANSI C12.20, provides different test tolerances and a few different tests that are required for higher accuracy meters that adhere to Blondel's theorem. To offer an option for non-Blondel meter forms, tolerance specifications for 0.5% accuracy class meters have been added to this standard.

Most other specifications have been retained from the previous edition. Changes to the temperature rise test were made to make testing consistent with the tests in the meter socket standard, ANSI C12.7. Section 5, Standards for New and In-Service Performance, and Appendix D were extensively updated to reflect current practices. For several of the tests, specific details for successful tolerance criteria have been modified, and test requirements for bidirectional metering have been added. Some definitions were also added and references to external documents were updated.

The Secretariat of the Accredited Standards Committee on Electricity Metering, C12, is held by the National Electrical Manufacturers Association (NEMA) and the National Institute of Standards and Technology. At the time this standard was processed and approved, the C12 Committee had the following members:

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The following members of the C12.1 Committee were actively involved in the revision of this standard:

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In addition, the Editorial Committee for the current Revision of C12.1 includes the following:

William Hardy  
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## **Section 1**

### **SCOPE AND REFERENCES**

#### **1.1 Scope**

This code establishes acceptable performance criteria for new types of ac watthour meters, demand meters, demand registers, pulse devices, and auxiliary devices. It describes acceptable in-service performance levels for meters and devices used in revenue metering. It also includes information on related subjects, such as recommended measurement standards, installation requirements, test methods, and test schedules. This Code for Electricity Metering is designed as a reference for those concerned with the art of electricity metering, such as utilities, manufacturers, and regulatory bodies.