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**American National Standard**

**Physical Aspects of Watthour Meters—  
Safety Standard**

**Secretariat:**

**National Electrical Manufacturers Association**

Approved June 28, 2011

**American National Standards Institute**

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**Foreword** (This Foreword is not part of American National Standard C12.10-2010)

There were relatively few changes made to this edition to bring it up to date with modern practice and with new editions of other ANSI C12 standards. To this edition Form 32S was added. Also the text was revised to allow disconnect links to be optional. There were minor changes to some of the figures to make them easier to read.

Dimensions and other relevant specifications given in this standard have been coordinated with the American National Standard Requirements for Watthour Meters Sockets, ANSI C12.7- 2005.

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 the committee approved this standard, the C12 Committee had the following members:

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## **For Physical Aspects of Watthour Meters**

### **1 Scope**

This standard covers the physical aspects of both detachable and bottom-connected watthour meters and associated registers. These include ratings, internal wiring arrangements, pertinent dimensions, markings, and other general specifications. Refer to the latest version of ANSI C12.1 and ANSI C12.20 for performance requirements.

### **2 References**

The following publications shall be used in conjunction with this standard. Use the latest published version of the document if no year is specified:

ANSI C12.1, *American National Standard for Electric Meters*

ANSI MH10.8.1- 2000, *Linear Bar Code and Two Dimensional Symbols Used in Shipping, Receiving, and Transport Applications*

*The Handbook for Electricity Metering*, 10th edition 2002, The Edison Electric Institute

### **3 Standards applicable to watthour meters**

#### **3.1 Mounting**

Mounting arrangements shall be either detachable (socket or type "S") or bottom-connected (type "A").

#### **3.2 Voltage and frequency**

The typical voltage and frequency ratings are 120, 240, 277, or 480 V and 60 Hz.

#### **3.3 Current classes and test amperes (TA)**

The normal current classes and test amperes shall be as listed in Table 1:

**Table 1 – Current classes and test amperes**

| <b>Current Class</b> | <b>Test Amperes</b> |
|----------------------|---------------------|
| 2                    | 0.25 A              |
| 10                   | 2.5 A               |
| 20                   | 2.5 A               |
| 100                  | 15 A                |
| 200                  | 30 A                |
| 320                  | 50 A                |

Note: Current classes 200 and 320 in "S" type only.

Other values of test amperes may be used.

#### **3.4 Typical form designations**

The form designations for watthour meters are listed in Table 2 and Table 2A: