



ANSI/NEMA C12.10-2004

American National
Standard for Physical
Aspects of Watthour
Meters-Safety
Standard



National Electrical Manufacturers Association
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for Physical Aspects
of Wattnour Meters—
Safety Standard

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ANSI C12.10-2004

Revision of
ANSI C12.10-1997

**American National Standard
for Physical Aspects of Watthour Meters—
Safety Standard**

Secretariat:

National Electrical Manufacturers Association

Approved July 1, 2004

American National Standards Institute

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Contents

	Page
Foreword.....	v
1 Scope.....	1
2 References.....	1
3 Standards applicable to watthour meters.....	1
3.1 Mounting.....	1
3.2 Voltage and frequency.....	1
3.3 Current classes and test amperes (TA).....	1
3.4 Typical form designations.....	2
3.5 Rotor (electromechanical meters only) (see Figure 2).....	3
3.5.1 Direction of rotation.....	3
3.5.2 Provisions for testing.....	3
3.6 Calibration adjustments (electromechanical meters only).....	4
3.7 Meter nameplate.....	4
3.7.1 Permissible abbreviations.....	4
3.7.2 Marking.....	5
3.7.3 Location of nameplate.....	5
3.7.4 Material.....	5
3.7.5 Space for utility data or company (utility) name.....	5
3.8 Displays.....	6
3.8.1 Pointer type register.....	6
3.8.2 Drum type cyclometer register.....	6
3.8.3 Solid state type.....	7
3.9 Requirements for solid-state registers.....	7
3.9.1 Switch points.....	7
3.9.2 Demand interval (non-thermal).....	7
3.9.3 Power outage.....	7
3.9.4 Optical communication interface.....	8
3.9.5 Security.....	8
3.9.6 Register nameplate information.....	8
3.9.7 Auxiliary switching outputs.....	8
4 Requirements applicable to detachable watthour meters.....	8
4.1 Dimensions.....	8
4.2 Hanger.....	8
4.3 Sealing.....	8
4.4 Connections.....	8
5 Requirements applicable to bottom-connected meters.....	9
5.1 Dimensions.....	9
5.2 Hanger.....	9
5.3 Sealing.....	9
5.4 Connections.....	9
5.5 Terminal blocks.....	9
5.6 Terminals.....	9
5.6.1 Current terminals.....	9
5.6.2 Voltage terminals.....	9
6 Procedure for assigning form designations.....	10

Tables

1	Current classes and test amperes.....	1
2	Typical form designations (socket type).....	2
2A	Typical form designations (bottom fed).....	3
4	Envelope of surfaces that project into socket for 5-terminal meters in 7-terminal sockets... 13	
5	Envelope of surfaces that project into socket for 7-terminal and 8-terminal meters.....	14
6	Envelope of surfaces that project into socket for 8-terminal and 13- to 15-terminal meters. 15	

Figures

1	External view of ANSI type 2 optical port.....	11
2	Markings for watt-hour meter rotors.....	12
3	Envelope of surfaces that project into socket for 4- to 6-terminal meters.....	13
4	Envelope of surfaces that project into socket for 5-terminal meters in 7-terminal sockets... 14	
5	Envelope of surfaces that project into socket for 7-terminal and 8-terminal meters.....	15
6	Envelope of surfaces that project into socket for 8-terminal and 13- to 15-terminal meters. 16	
7	Mounting and terminal dimensions for detachable single element and multi-element watt-hour meters with 4- to 8-terminals.....	17
7A	Suggested dimensions for bevels for terminal blades.....	18
8	Mounting and terminal dimensions for detachable multi-element watt-hour meters with 8-terminals and 13- to 15-terminals.....	19
9	Envelope of round covers for detachable single element and multi-element watt-hour meters.....	20
10	Internal connections for detachable single element watt-hour meters (front views).....	21
11	Internal connections for transformer rated detachable multi-element watt-hour meters (front views).....	22
11A	Internal connections for transformer rated detachable multi-element watt-hour meters (front views).....	23
12	Internal connections for self-contained detachable multi-element watt-hour meters (front views).....	24
12A	2-element, 4-wire (universal) form 28S.....	25
13	Socket jaw position identification (front view of socket).....	26
14	Outline and terminal dimensions for bottom-connected single element watt-hour meters....	27
15	Outline and mounting dimensions for bottom-connected multi-element watt-hour meters....	28
16	Internal connections for bottom-connected single element watt-hour meters (front views)...	29
17	Internal connections for transformers rated bottom-connected multi-element watt-hour meters (front views).....	30
18	Internal connections for self-contained bottom-connected multi-element watt-hour meters (front views).....	31
ANNEX A	32
A.1	Foreword to the First Edition (1978).....	32
A.2	Foreword to the Second Edition (1987).....	33
A.3	Foreword to Third Edition (1997).....	34

Foreword (This Foreword is not part of American National Standard C12.10-2004.)

This standard was developed by the Accredited Standards Committee on Electricity Metering, C12, for full consensus approval as an American National Standard and provides recommended minimum requirements for both detachable and bottom-connected watt-hour meters. This revised edition supersedes ANSI C12.10-1997.

Suggestions for improvement to this standard are welcome. They should be sent to:

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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. The title was modified to more accurately reflect the contents of this edition. The last of the performance specifications for solid state registers on electro-mechanical meters that were in section 6, have been moved to C12.1-2001 and thus this standard now contains physical specifications. To this edition Forms 39S and 76S were added, as was the reference to class 2 ampere meters. The drawing for figure 6 was corrected.

Dimensions and other relevant specifications given in this standard have been coordinated with the American National Standard Requirements for Watt-hour Meters Sockets, ANSI C12.7-1993. 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

Current Class	Test Amperes
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.