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American National Standard Requirements for Watthour Meter Sockets

National Electrical Manufacturers Association

National Electrical Manufacturers Association
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ANSI C12.7-2005

American National Standard

Requirements for Watthour
Meter Sockets

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Secretariat:

National Electrical Manufacturers Association

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Foreword (This Foreword is not part of American National Standard C12.7-2005.)

This standard was developed by subcommittee 15 and balloted by the Accredited Standards Committee on Electricity Metering, C12, for full consensus approval as an American National Standard. This revised version supersedes ANSI C12.7-1987. Certain performance requirements covered by the latest revision of Underwriters Laboratories Standard for Safety on Meter Sockets have been adopted and referred to in this standard. Information on subsequent revisions of these provisions can be obtained through the Underwriters Laboratories Subscription Revision Service.*

This standard covers the dimensions and functions of meter test switches for transformer-rated watthour meters when used in conjunction with instrument transformers.

Suggestions for improvements of this standard will be welcomed. They should be in the form of a proposed change of text, together with appropriate supporting comments.

Comments on standards and requests for interpretations should be addressed to:

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Requirements for Watthour Meter Sockets

1 Scope

This standard covers the general requirements and pertinent dimensions applicable to watthour meter sockets rated up to and including 600 V and up to and including 320 A continuous duty per socket opening.

2 References

This standard shall be used in conjunction with the following standards. When the following standards are superseded by an approved revision, the revision shall apply.

ANSI C12.10-2004, American National Standard for Electromechanical Watthour Meters.
ANSI Z535.4-2002, Product Safety Signs and Labels.
ANSI/UL 50-1995, Enclosure for Electrical Equipment.
ANSI/UL 414-1999, Safety Standard for Meter Sockets.
NEMA 250-2003, Enclosures for Electrical Equipment (1000 V Maximum).

3 Definitions

3.1 circuit bypass means (bypass): An assembly of parts which, when properly operated, closes the circuit between the line and load jaws.

3.2 continuous-duty current rating: The rating in amperes that a meter socket will carry continuously under stated conditions, without exceeding the allowable temperature rise.

A multiposition trough socket has an additional current rating that denotes the maximum ampere capacity of the line buses.

3.3 continuous load: A load where the current continues for 3 hr or more.

3.4 meter socket (socket): An enclosure that has matching jaws to accommodate the bayonet-type (blade) terminals of a detachable watthour meter and has a means of connections for the termination of the circuit conductors. It may be a single-position socket for one meter or a multiposition trough socket for two or more meters.

3.5 meter support: That part of a ringless-type meter socket that positions and supports a detachable watthour meter.

3.6 ringless-type meter socket: A meter socket that has no provision for a socket sealing ring but has other means of holding a detachable watthour meter in place, such as a cover that is secured in place by a latch.

3.7 ring-type meter socket: A meter socket that has a socket rim.

3.8 socket cover: The removable portion of the enclosure that provides access to the meter socket wiring.

3.9 socket rim: That part of a ring-type meter socket that is required to accommodate the socket sealing ring that holds a detachable watthour meter in place.

The socket rim may be a part of the cover that is secured in place by a fastener such as a latch or crossbar.

3.10 socket sealing ring: A ring used to overlap the socket rim and the detachable watthour meter cover ring to hold and provide means for sealing a detachable watthour meter in place.