

ANSI C12.8-1981 (R1997, R2002, R2012)

# American National Standard

Test Blocks and Cabinets for Installation of Self-Contained "A" Base Watthour Meters

Secretariat:

**National Electrical Manufacturers Association** 

Approved: May 19, 2011

Published: December 18, 2012

American National Standards Institute, Inc.

This is a preview of "ANSI C12.8-1981 (R20". Click here to purchase the full version from the ANSI stor	re.

C12.8-1981 (R1997, 2002, R2012) Page ii

#### **NOTICE AND DISCLAIMER**

The information in this publication was considered technically sound by the consensus of persons engaged in the development and approval of the document at the time it was developed. Consensus does not necessarily mean that there is unanimous agreement among every person participating in the development of this document.

The National Electrical Manufacturers Association (NEMA) standards and guideline publications, of which the document contained herein is one, are developed through a voluntary consensus standards development process. This process brings together volunteers and/or seeks out the views of persons who have an interest in the topic covered by this publication. While NEMA administers the process and establishes rules to promote fairness in the development of consensus, it does not write the document and it does not independently test, evaluate, or verify the accuracy or completeness of any information or the soundness of any judgments contained in its standards and guideline publications.

NEMA disclaims liability for any personal injury, property, or other damages of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, application, or reliance on this document. NEMA disclaims and makes no guaranty or warranty, express or implied, as to the accuracy or completeness of any information published herein, and disclaims and makes no warranty that the information in this document will fulfill any of your particular purposes or needs. NEMA does not undertake to guarantee the performance of any individual manufacturer or seller's products or services by virtue of this standard or guide.

In publishing and making this document available, NEMA is not undertaking to render professional or other services for or on behalf of any person or entity, nor is NEMA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances. Information and other standards on the topic covered by this publication may be available from other sources, which the user may wish to consult for additional views or information not covered by this publication.

NEMA has no power, nor does it undertake to police or enforce compliance with the contents of this document. NEMA does not certify, test, or inspect products, designs, or installations for safety or health purposes. Any certification or other statement of compliance with any health or safety-related information in this document shall not be attributable to NEMA and is solely the responsibility of the certifier or maker of the statement.

C12.8-1981 (R1997, 2002, R2012) Page iii

# American National Standard

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved the standards or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

**CAUTION NOTICE:** This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

#### Published by

## National Electrical Manufacturers Association 1300 N. 17th Street, Rosslyn, Virginia 22209

© Copyright 2012 by the National Electrical Manufacturers Association. All rights including translation into other languages, reserved under the Universal Copyright Convention, the Berne Convention for the Protection of Literary and Artistic Works, and the International and Pan American Copyright Conventions.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without prior written permission of the publisher.

Printed in the United States of America.

C12.8-1981 (R1997, R2002, R2012) Page iv

# **TABLE OF CONTENTS**

		_	Page	
FOREWORD				
SECTION 1	sco	PE	1	
SECTION 2	DEFI	INITIONS	1	
	2.1	Cabinet, Test Block		
	2.2	Connector		
	2.3	Disconnect		
	2.4	Test Block		
SECTION 3	СТА	NDARD RATINGS	1	
OLOTION 5	3.1	Current		
	3.2	Voltage		
OFOTION 4	OEN	IEDAL DEGLUDEMENTO		
SECTION 4		ERAL REQUIREMENTS		
	4.1	Spacings		
	4.2	Temperature Rise		
	4.3	Assembly Bolts		
	4.4	Connectors		
	4.5	Connector Nuts		
	4.6	Test Clips		
	4.7	Barriers		
	4.8	Disconnect Device		
	4.9	Material of Base		
	4.10	Mounting Holes	3	
SECTION 5	TEST	T-BLOCK DIMENSIONS AND CONFIGURATIONS		
	5.1	Dimensions		
	5.2	Test-Block Figures	3	
SECTION 6	TEST	T-BLOCK-CABINETS	9	
	6.1	Dimensions for Indoor Test-Block Cabinets	9	
	6.2	Cabinet Cover	9	
	6.3	Cabinet Material	9	
	64	Cabinet Construction	9	

C12.8-1981 (R1997, R2002, R2012) Page v

ANSI C12.8-1981 (R-1997)

#### **FOREWORD**

(This foreword is not part of ANSI C12.8-1981 (R1997) American National Standard for Test Blocks and Cabinets for the Installation of Self-Contained A-Base Watthour Meters.)

This standard covers the dimensions and functions of test blocks and cabinets used with self-contained A-base Watthour meters.

This standard supersedes the requirements of the former AEIC-EEI-NEMA Standard for Test Blocks and Cabinets for the Installation of Self-contained "A" Base Watthour Meters, MSJ-8-1951, NEMA 103-1951.

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

Senior Technical Director, Operations National Electrical Manufacturers Association 1300 North 17<sup>th</sup> Street Rosslyn, VA 22209

This standard was processed and approved for submittal to ANSI by American National Standards Committee on Electricity Metering, C12. Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the C12 Committee had the following members:

Tom Nelson, Chair Paul Orr, Secretary

Organization Represented	Name of Representative	
Electric Light and Power Group (The Association of Edison Illuminating Companies and the Edison Electric Institute)	J. McEvoy T. Vahlstrom J. Mining L. Pananen	
Institute of Electrical and Electronics Engineers	H. Millican	
National Institute of Standards and Technology	N. Oldham	
National Electrical Manufacturers Association	W . Germer T. C. Drew F. A. Marta	
Underwriters Laboratories	R. Breschini	
Rural Electrification Administration	S. Jones	
Florida Public Service Commission	J. Ruehl	

This is a preview of "ANSI C12.8-1981 (R20". Click here to purchase the full version from the ANSI store.
C12.8-1981 (R1997, 2002, R2012)
Page vi

<Pre><Previous page is blank.>

C12.8-1981 (R1997, R2002, R2012) Page 1

#### AMERICAN NATIONAL STANDARD

ANSI C12.8-1981 (R1997, R2002, R2012)

# American National Standard for Test Blocks and Cabinets for Installation of Self-Contained A-Base Watthour Meters

#### 1 SCOPE

This standard covers the dimensions and functions of test blocks and cabinets used with self-contained A-base Watthour meters.

### 2 **DEFINITIONS**

#### 2.1 CABINET, TEST BLOCK

An enclosure to house a test block and wiring for a bottom-connected Watthour meter.

#### 2.2 CONNECTOR

A coupling device employed to connect conductors of one circuit or transmission element with those of another circuit or transmission element.

#### 2.3 DISCONNECT

A conductor, bar, or nut used to open an electrical circuit for isolation purposes.

#### 2.4 TEST BLOCK

A terminal block with provisions for bypassing an electrical load to isolate a meter or other device for test purposes.

## 3 STANDARD RATINGS

#### 3.1 CURRENT

Ratings shall be 100 A and 200 A.

#### 3.2 VOLTAGE

Ratings shall be 300 V and 600 V.

#### 4 GENERAL REQUIREMENTS

#### 4.1 SPACINGS

Spacings shall be as indicated in Table 1. Grounded metal includes the enclosure and any metal in permanent electrical connection with the enclosure.

#### 4.2 TEMPERATURE RISE

The temperature rise of current-carrying parts shall not exceed 55°C above an ambient temperature of 25°C at 100% of rated current.